Industrial Diamond Abstracts

Index January-December 1968

Authors' Index 2
Trade Name and Company Index 8
Key to Abstract Numbers 12

Industrial Diamond Abstracts

VOLUME 28 JANUARY to DECEMBER Nos. 326 to 337

General Notes: (1) individuals, societies, and institutions appear in the first part of the index, whilst commercial companies and trade names are listed in the second part. (2) Lists of new patents (section W) are not included. (3) Patentees from patent abstracts are indicated by an asterisk. (4) Abbreviated words *eg* St for Saint, Mc for Mac, appear in the alphabetical order of the full version. (5) Numbers given are abstract numbers: in order to locate in which issue a given abstract may be found a key is appended. (6) Abstract numbers in brackets are of 'internal' references, *ie* they are not authors of the articles or patents but are referred to in the text.

I D A AUTHOR INDEX

A

ASAM *see* **American Society of Abrasive Methods**
ASME *see* **American Society of Mechanical Engineers**
ASTME *see* **American Society of Tool & Manufacturing Engineers**
Aachen Technical University, (F189), (F298)
Abbasov, I. K., L77
Abduladze, A. M., L77
Abdullaev, A. D., L45
Abernathy, W. J., C21*
Academy of Sciences of the USSR, (A25)
Adams, J. R., P21*
Ahlström, A. E., F145*, F256*
Aiken, H. H., M34*
Alecsandrescu, C.-J., F216*
Alexander, L. E., A16
All Union Institute for Prospecting Techniques (VITR), (L6)
Allemann, H., N61*
Allen, G. W., E18*
Ambrose, P. M., (V3)
American Machinist, (F156)
American Society for Abrasive Methods (ASAM), (F64), (S1)
National Technical Conference, (F64), (S1), (T76)
American Society of Lubrication Engineers, (N10)
American Society of Mechanical Engineers (ASME), (D18), (F180)
American Society of Tool & Manufacturing Engineers (ASTME), (C4), (F59), (F65), (F135), (F275), (G30), (P26)
Amero, J. J., F225
Amrhein, H. G., F190, H9
Anderson, A., E19*
Anderson, B. W., A67
Anderson, D. W., E33, E34, E53, E62
Anderson, P. B., B37
Andrews, W. R., F18*
Anel'chik, D. E., F350
Angel, B. R., A28, A66, A73
Angus, J. C., A78
Antonenko, A. A., L17
Arai, Y., E67, F341, M171
Arai, Yu. *see* **Arai, Y.**
Armytage, F. A., G37*
Arneson, H. E. G., G62*
Arnold, C. S., S4*
Artamonov, A. Ya., F228
Arthur, G., B47*, B49*
Artsimovich, G. V., L83
Artyukhova, A. A., G41
Ashworth, S. I., J13*
Astaf'ev, P. I., L8
Astrop, A. W., F40, F272
Aubrée, J., B26*
Ault, N. N., B10*
Austin, F. R., (N10)

B

Babl, A., (V10)
Baier, E., T106
Baker, D. A., E11*
Baker, R. C., N41*
Bakul, V. N., A60, G53, T28, T50
Balamuth, L., F51*
Balandin, A. A., A76
Balmforth, W., F133
Balsiger, H. E., F142*, F265*
Banner, A. H., F115*
Barab-Tarle, M. E., D25
Barandiarán, F., F239
Barash, M., D8
Barden, A. E., L39*
Barnes, S., T112
Barnes, S., T112
Baronyak, L. J., F146*
Baronyak, M. F., F146*
Barradell-Smith, R., M173*
Barragan, J., G87*
Barry, F. W., S5*
Barton, F. L., M192*
Barton, Sir John, (P7)
Bartoshinskii, Z. V., T27
Bashkin, S., S13*
Bass, M. M., F288*
Bassols, C., G90
Battelle Memorial Institute, (F270)
'Industrial Diamond Revolution' Conference, (F174), (F185), (G64) (T79)
Bauer, G., C46*
Baukel, G., M78
Baur, E., G20
Bayunchikov, V. A., L17
Bechem, K. G., L67*
Becker, H., K14
Behm, C. M., F110*
Beiman, J. A., M178*
Bell, R. M., F288*
Bellis, A. J. L., L85*
Belousov, V., F216*
Benson, D. H., Q3
Benz, E., P11, P15
Ber, A., N66
Berbmann, O. R., R6*
Beroujou, C., F88*
Berthoumieux, G., M84
Beth, W., F263*
Betram, N., Q20
Beyer, H., F301*
Bezrukov, G. H., A75
Bezrukov, G. N., A64
Bezzubenko, N. K., G93
Bhattacharyya, S. K., F316
Biaggi, D., M107*
Biebuyck, L., M144*
Bielstein, W. J., L72*
Birrell, R. W., M34*
Black, T. W., F124
Blair, R. E., C56*
Blakesley, L. F., F16*
Blanpain, E., F198, G71
Blinov, G. E., L82
Blohm, R., F322*
Blubaum, W., E23*
Board, S. S., F358*
Bock, V., C46*
Bodine Jr, A. G., L68*
Boeckeler, B. C., F89*
Börner, R., V17
Boettcher, S. A., G99*, G108*, G117*
Bogomolov, R. M., L66*
Boiko, V. I., C39, Q31
Boleslawska, B., N38
Boller, J. A., F281*
Bolonova, E. V., F233
Bommel, W. A. E. F., M117*
Bonin, G. E., M132*
Border, W. R., F360*
Bose, D. N., A68
Botkunov, A. E., A1
Bourdeau, R. G., B18*, B20*
Bouton, J., F243
Bouxin, J., M145*
Bovenkerk, H. P., A4*, C36*, T67*
Bowden, F. P., A12, V16
Bradley, C. H., J20*
Brandner, G., E31*, E61*, E63*, E70*, E76*, E85*
Braun, A., N27
Braun, S., N66
Braune, G., G123*
Brayman, J., T16*, T27*, T61*
Breev, B. T., F187
Brenicker, K., (V10)
Brierley, R. G., B5, C4
Brierley, Z., F210*
Bristol, B. N., D2
British Hard Metals Association, (B5), V1
Brookes, K. J. A., B58
Brown, C. C., L41*
Brownlee, L. D., B59*
Bruce, W. E., L84
Brunswick Technische Hochschule (V8)

Bryant, A. J., C80*
Buchner, S., C77
Buck, G., F63
Buck, W. B., L22*
Bückle, H., N28, N30
Buell, H. W., C56*
Büsing, K., (V10)
Büttner, A., F91, F177
Bundy, F. P., A21*, T53*
Bunel, J., F151*, F167*
Burachek, N. A., L46
Burder, C. H., C11
Burkov, V. V., T42
Burstein, E., A56
Busack, U., H10
Bushman, T. D., N7*
Byrns, A. C., B8*

C

Calvi, M., M167
Cannon, P., A20*
Canute, King, (T54)
Carlson, A. C., F152*
Caro, M. R., L55*
Carreras, (E28)
Carson, E. G., M58*
Caspers, W., C44
Cave, E. F., M176*
Cavendish Laboratory, A31
Cerutti, J., N39
Chaika, G. V., F6
Chalkins, T. H., M126*
Chalkley, J. R., F134, F319, (T10)
Chantley, M. D., G59*
Charlade, J., F203*
Charles, N., M15, M20
Charles-George, A., F151*, F167*
Charvat, V. K., C107*
Chechina, I. G., K8*
Chen, R., A6
Chepovetskii, I. Kh., G9, G42, G50, G95
Chernokov, P. V., D1
Chinik, H. P., P23
Chimulgund, N. D., M136
Chistyakov, Yu. A., L7
Christensen, F. L., J21*
Christian, W. E., C54*
Chvanov, V. A., L46
Clarkson, J., K9
Cleland, C. E., E50*
Clement, J. T., Q5*
Clements, W. J., K3, K6
Cobb Jr, J. S., G98*
Coes Jr, L., C93*
Cofran, L. L., C14*
Colding, B., C104*, F28
Cole, J. W., (V3)
Commodities Division, Commonwealth Secretariat, (V11)
Commonwealth Secretariat, V11
  Commodities Division, (V11)
Conti, A., F168*
Coogan, C. K., P24
Cook, A. M., C81*
Cooper, M., A31
Cooper, W. M., M177*
Corbett, R. B., B7*
Cornely, H., (V19)
Corr, L. E. B., S32
Corteville, J., B1
Cottrell, A. H., A34
Coulson, (A50)
Cover, R., E51*
Cowley, R. A., A40
Cox, A. J., G79*
Cramer, L. W., M106*
Crausaz, R., E64*
Creative Manufacturing Seminar, (C78)
Cross, R. V., L65*
Crystallographic Laboratory, A31
Curn, F., C19*
Custers, J. F. H., T15*
Czubak, A. S., G17*, G35*

D

Daem, R. C., M142*
Dall, H., E52*
Damerell, M. H., F44
Dam, F. Dal, D20*
Daniault, J., S6*, S18*
Daniel, P., C72, D24, F30, G112, M19, M64, M138, M165, M170
Danilyenko, B. D., F120, F121, F276
Danillyenko, B. D. *see* **Danilyenko, B. D.**
Darrow, K. A., A3*, A8*, C105*
Daude, O., F196, F290
Davidson, A. M., F11, F122
Davies, G., G77*
Dawihl, W., C91*
Day, F. M., E87*
de Bruin, N., G74
de Femery, A., T115
de Groat, G., F221
de Plancke, A. F., B48*
de Wayne Combes, J., L12*
Dean, P. J., A41
Dekoninck, C., B4
Delacour, J., T69*
Delai, A. J., B56*
Demaria, H., C47*
Denham, P., A41
Dennis, W. H., T45
Derain, M., M81
Derenthal, R., G46
di Canio, M., M180*
di Curcio, R. A., S29*
Diamond Research Laboratory, (C13), (F94), (F185), (F194), (F238), H1, (M110), (T57)
  de Beers Grinding Centre (F179)
Diamond Syndicate, (T52)
Diamond Tools in Modern Production Processes, Seminar, (G104)
Diamond Tools in the Stone Industry, Conference, (M137), (M168)
Dill Jr, F. H., S17*
Djalilov, N. M., L44
Dörre, E., C91*
Dolling, G., A40
Dooley, P. C., C26*, F217*, F307*, F325*
Downs, B. E., F283*
Drummond, P., F254*
Duckwall, F. E., M126*
Dübel, W., B55*
Dunn, E. R., F213*, F261*, F323*, F361*
Dunn, R. M., M80
Durand, R., M130*
Durey, M., (M41)
Durham, D. G., P2
Durr, H., F72
D'yakov, A. G., T6, T27
Dyer, H. B., (F185), F194, F234, F270, (F293), S1, T15*, (T77)
Dyer, H. N., C23*

E

Ebel, H., J11
Eckert, J. D., C59
Edelsteinforschungsinstitut Idar-Oberstein, (T36)
Egon, D., M121
Eich, M., C73*
Eichhorn, F., (F290)
Eickmeier, E., F299*
Eilmes, J., F38
Electronic Institute, Polish Science Academy, (T118)
Ellis, L. J., B27*, R7*
Ellis, M. P., C67*, G17*
Elstrand, J. G., L42*
Emain, J., Q28*, Q33*
Emel'uanov, V. I., L6
Engel, W. T., M51*
Engineer, V13
Engle, R. C., G17*
Epain, R., T101*
Eppler, W. F., Q2
Eremenko, G. K. V., T30
Ergun, S., A16
Ern, H., F310
Ernst, A., N3*, N51*
Ernst, W. G., V23
Esayan, M. A., F137
Estabrook, M. R., G68*
Eulitz, W. R., A80
Eulitz, W. R., A80
European Machine Tool Exhibition, (E25), (F58), (F63), (F190), (F226), (H13), (H15), (K18), (T9)
Evans, T., A24
Eyring, H., T46

F

Falk, F., T84
Farley, J. N., G99*
Farmer, D. A., F135
Farrar, R., J12
Fassler, M., B60*
Favre, H., Q9*, Q23*
Favrot, P., F215*
Feather, H. A., G116*
Fedorchenko, I. S., G95
Fedotov, A. I., N62
Fedotov, V. A., M111
Feenstra, R., L73*
Fehlmann, H., M32*
Fehr, M., T126
Feklichev, E. M., A11
Ferguson, K. A., F66
Ferrand, M., T68*
Fessel, P., M94*
Figiel, F. J., A59*
Finnigan, G., M181, M182
Fischer, A., K5*
Fischer, H., G27
Fish Jr., G. E., L9
Fisher, R. C., F21*
Fitzpatrick, P., G107*
Fitzwilliam Museum, Cambridge, (M166)
Flanigen, E. M., B24*
Flek, R., (V19)
Flemming, R., F285*
Flohr Jr., W. P., E39*
Flook, D., F33, F193, M30, (T10), T21, T65
Florian, S. L., G2*
Flurschütz, W., B55*
Ford, P. C., F286*
Forssen, T. S. L., L49*
Fragin, I. E., G10
Frank, F. C., A79
Frank, H., (V10)
Franke, G., F285*, F306*, T138
Frantesson, E. V., T3
Frederick, J. R., N12
Frehn, F., B33*, B51*
Frei, A., F148*, F164*
Frei, M., M70*
Friedel, J., A50
Fries, J. R., F79*, F281*
Frindel, S., F218*
Fritz, H., T95, T107

Fuchs, H., (V10)
Fulks, J. K., E68*
Funderburk, J. C., L37
Fusek, C., H29

G

Gärtner, F., N49, N54
Gagliardi, G. A., F358*
Gagne, R., M169
Gales, R. F., M96*
Galey, W. F., M149*
Galimberti, J. M., C78
Galkin, V. V., A63
Gardille, E., C55*
Garner, N. E., L11*
Gaskell, T. F., L34
Gauger, R., E57
Gauvin, P. L., L16
Gauzner, M. Ya., D14
Gavrilov, V. N., H22
Gebel, K. M., F267*, F354*
Gehrke, R., N28
Gejo, T., B9*, B50*
Gemological Institute of America, (T19)
Gerard, G., T16*, T61*
Gerasimenko, N. N., A51
Gerlach, D., S10
Gesellschaft der Edelsteinfreunde, (T52)
Gevorkov, H. S., L81
Giardini, A. A., A14*
Giardini, D. S., F17*
Gierden, E., M73*
Giesen, K., V10
Gintz, C., M14, M21
Ginzburg, B. I., T5
Glass Technology Conference, 41st, (M43)
Gluchowicz, G., E78*, F114*
Glückauf, (70)
Glur, P., E38
Goddard, N. L., E68*
Godar, C. L., F255*
Goeckel, F. D., M58*
Götz, F., V22
Götz, J., M99
Gofman, M. I., F250
Gold, D. P., T105
Golten, K., F113*, F172*
Golten, S., F113*, F172*
Gommel, G., N48
Goddey, D. C., P6*
Goodier, J. L., T32, T44
Goroff, I., A39
GOST (F35)
Gottschald, R., D30*
Grabowski, J., E86*
Graczyk, C., J9
Graf, R. E., M125*
Granovskii, E. G., G63
Graves, G. W., G48*
Gray, D. L., M53*
Gray, N. W., M142*
Green, R. E., E16, H5
Green, W. F., F109*, F258*
Gregori, E., M40*
Grinberg, R. Ya., T83*
Grinenko, V. A., A75
Grinding & Finishing, (T78)
Grinson, A. S., T62
Grjo, T., B21*
Grolet, P., T69*
Groth, R., F289
Grove, G. L., E52*
Gruhn, H. H., K11, K17
Gstadler, S. A., L71*
Gühring, K., F198, F347
Guillard, D., C69*
Gujkova, B. S., (T49)
Gunn, C. B., T103
Gurvich, R. A., H33

H

Haagenstad, D. L., F275
Haasis, G., G19, G73
Haberacker, H., F74, F104
Habib, R., F116*, F205*
Hacman, D., V4
Hager, H., C87, C99
Hagorsen, H., M56*
Hahn, R. S., F8, F346
Haisch, R., F118*
Hall, E. W., C27*
Hallewell, R. T., C20*
Hallez, C. P., M137
Hammond, L. C., F288*
Hanle, E. H., C30
Hanneman, R. E., A38, A44
Hannon, W. F., G86*
Hanover Diamond Tool Seminar, (F175)
Happel, W. E., F19*
Harbeck, M., D15*
Harris, H. D., G106
Hartley, D. W., Q1, Q8, Q12
Hatstat, R. G., F26*
Hauri, H., F90, G109
Hayes, S. V., F300*
Haygarth, J. C., B19
Healy, F. P., F22*
Heer, U. T., F232
Heestand, R. L., B54*
Heflich, H. G., M51*
Henderson, H. I., L23*, L50*
Henisch, H. K., A68
Hennig, P. T., F61
Hensley, J. L., F153*
Hervo, P., Q25
Herzog, A. H., G67*
Hetzel, M., D31*
Highberg, C. W., M49*, M93*
Hildebrand, W., M79
Hildebrandt, A. B., L10*, L29*, L56*
Himstedt, W., H27*
Hindley, W. B., F253*
Hoerer, M., M179*
Hofman, F., E60*
Hohler, F. A., E49*
Hold, P., F358*
Holliday, R. W., (V3)
Holt, T., F176, F223
Holz, R., M43, T35
Horgan, J. F., C67*
Horie, T., C89*
Horner, M. H., B60*
Hornung, A., E43
Horsfield, W. R., P13*
Houldsworth, J., F46*, F47*
Hucke, E. E., B29*
Huffman, C. O., M149*
Hughes, F., (F94), F175, F179, (F182), F238, F242, F245, H1, T57
Hughes, F. H., E1, F158
Hughes, M. D., L30
Hughson, C. J., L85*
Huisman, H., Q11*, Q13*, Q24*
Huisman, J., Q11*, Q13*, Q24*
Huizing, A., C76*, C85*
Hull, E. H., A3*, C57*, C79*
Hungerford, W. J., G61*
Hurth, F., E71*
Hutton, N. H., F48*, F111*, F150*, F166*, F259*

I

IRSID, (N46)
ISO, (F188)
Ida, I., G52, G65, M159
Ikogawa, K., H19
Il'in, V. E., A77
Imai, S., N4*
Imanaka, O., M66
Imperial College, (T12)
Inaha, S., F302*
Indge, J. H., G114
Industrial Diamond Association of America, (A10), (F234)
Industrial Diamond Association of Japan, (C11), T47
'Industrial Diamond Revolution' Conference, Battelle Memorial Institute, (F174), (F185), (F270), (G64), (T79)
Ingulli, C. N., S7
Institut Belge de Normalisation, C71
Institut für Werkzeugmaschinen, E69*
Institute of Geology & Geophysics, T4
Institute of Mineral Resources, Simferpol', T6
Institute for Synthetic Superhard Materials, Kiev, C10, F35, (G41), (G53), T5
International Commission on Glass, V5
International Conference on Crystal Growth, (A38)
International Industrial Diamond Conference, Oxford, (F73), (F124), (F195), (J7)
International Machine Tool Exhibition, (F351), (K16)
Inuzuka, H., A65*
Ippolitov, G. M., F186
Isetts, R., F3
Ishida, Y., M88
Ishizuka, H., A19*, A30*, A72*, T120*
Ishkov, A. D., T2
Ishmukov, G. I., G39
Isihara, Y., F302*
Israel Geological Survey, (V6)
Istomin, S. N., M63
Ivanov, P. Ya., M112
Ivanyets, V. I., F34
Iwamoto, S., B17*

J

Jacon, V. C. M., Q10*, Q16*, Q34*
Jakhimovich, D. F., K8*
Japanese Grain Processing Institute (C1)
Janssen, J., E20*
Jennings, G., E15
Jensen, J., T81
Jessen, J., G7
Joanesyan, J. R., L53*
Joanesyan, R. A., L53*
Johnson, R. W., H26*
Jona, M. G., N50
Jones, C., F143*
Jones, K. R., F141*
Jordi, C., T88
Juillerat, H., C8*, C42*, C45*, C88*
Junklewitz, H., F68

K

Kabanovskii, L. N., F231
Kaczmarek, J., F38
Kahrmann, H., B25*
Kaiser, L. F., M192*
Kalashinikov, Ya. A., A11
Kalb, G., A9

Kalher, C. I., (G30)
Kaliser, H., F9
Kaliszer, H., F300*
Kalygina, N. A., F183
Kaminskaya, V. V., F181
Kaminskii, F. V., T1
Kammerer, A. W., L48*
Kammerer Jr., A. W., L48*
Kamyszek, K., M41, M191
Kanesasu, I., G103
Kashcheev, N. M., T49
Kasatochkin, A. V., L46
Kashkarov, I. F., T113
Katrus, O. A., C97
Kawamura, T., C31
Kawashina, C., B52
Kayser, G., H36
Kearsly, (A50)
Keinman, L., A39
Kelly, A., A34
Kelly, T. J., D3*
Kelso, J. G., C6*
Kendall, L. F., F82*
Kennedy, G. C., B19, H12*
Kent, M. J., E77*
Keogh, C., F58, F317, F342, F351
Keough, C., *see* Keogh, C.
Kern, D., M157
Kevern, J., S33
Khar'kiv, A. D., T7, T40
Kasimoto, Ya. H16
Khavak, G. S., V12
Khazanov, G. I., L17
Khrushchov, M. M., N16
Khvorostetskii, V. I., F6
Khvorostukhil, L. A., D28
Kibirev, S. N., M36*
Kigel', I. G., G41
Kikhara, K., G102
King, C. B., E21*
King, H. N. G., (K14)
Kirchner, W., G123*
Kirmse, W., G104, G113
Kiso, S., G84*
Kistler, S. S., C15*, C90*
Kizikov, E. D., G41
Klar, J., F147*, F163*
Klaus, P., M121
Kleesattel, C., F51*
Kleidorfer, F., F92
Klein, A., F119*, F161*
Klein, J., G16*
Klimochkin, E. Ye., L28
Klingler, E. A., C91*
Klomp, A. W., E68*
Kluge, H. J., E31*, E61*, E63*, E70*, E76*, E85*
Knapp, S. R., L32*
Kobayashi, A., C32
Koch, E., E83*
Kodochigov, P. N., A33
Köhler, H., E69*
König, W., (F290), (V19)
Koenigsberger, F., (F349)
Kogan, M. N., M36*
Kohlermann, R., B55*
Kolb, A., F105*
Komyshan, N. P., H33
Koroleva, E. M., F103
Kosmos Gesellshaft der Naturfreunde, (V17)
Kossmann, E., F301*
Kotera, Y., J17
Kovacik, S., M106*
Kozubovskii, A. I., T2
Krasheninnikov, M. N., T94
Krasnov, V. P., F229, M65
Kremer, H., G5
Kriegel, E., J1, J2
Krisch, A., N47
Kropotova, O. I., A75
Krumme, J. B., A45
Krupetskii, V. A., E83
Kruse, J. M., A58*
Kubota, M., H23
Kubsch, L. M., C68*
Kuchenhart, F. W., E4*
Kuderko, R. A., F209*
Kuhnke, A., M152
Kulakova, L. L., A76
Kulikov, S. I., G72
Kulishenko, W., S19*
Kumagi, (C1)
Kumagai, N., C18, C75*
Kuratomi, T., R1*, R2*
Kuroisi, R., F240
Kuroki, K., N57
Kuyazev, I. K., L8

L

Labe, M., C69*
Lacey, M. W., M193*
Lambert, D. E., L3
Lambert, K. T., M92*
Lambooy, P., T31
Lamphere, J. K., L48*
Landion, M., D20*
Lang, A. R., A24, A79
Lange, G., N34
Lange, H., G87*, G100*
Langen, V., D30*
Lannom, W. A., M9*
Lannoo, M., A50
Larmer, J. W., G61*
Lauer, O., J5
Laur, R., F56*
Lauroua, L. R., F55*, F87*
Lauroua, R., F188
Lawn, B. R., A79
Lazarescu, I., F244
Le Grand, R., F295
Leach, N., E82
Leake, J. A., A31
Lebedev Physics Institute, P.N., A63
Lebedev, V. N., L82
Lederer, E. H., M58*
Lednov, P. S., F14
Lee, T. B., F115*
Legge, P., S11*
Leguy, B., F266*
Lehtinen, B., G120
Leibowitz, A., Q29*
Leineweber, G., B30*
Leipzig Spring Fair, 1968, (F313), (F314)
Leitten Jr, C.F., B54*
Leivo, W. L., A45
Leletukha, V. P., G49
Leman, G., A50
Lennarts, H., M10*
Lennon, F. J., F174, T79
Lenzen, G., T52, T111, T135, V2, V20, V21
Lepetukha, P. V., G75
Leseultre, M., (M41)
Leskov, I. S., M153
Levin, Z. A., L78
Levinsohn, M., G61*
Levitt, C. M., S31
Lewin, H., (K14), S34*
Lewis, G., (F182)
Lezgintsev, G. M., T94
L'homme, F., F266*
Liddicoat, R. J., Q15
Liddicoat, Jr, R. T., N1
Lierath, F., H14
Lightowlers, E. C., A41, A70
Lindblad, F. W., F271, M95*
Lindgren, G. V., F108*
Lindhag, C. L., G85*
Lindsay, R., F8
Lindstrom, G. A., G23*
Linstrom, O., C70*
Linholm, A. A. L., M110, T134
Linkova, G. G., D10
Lintner, A., C47*
Lockwood, G. H., E12*
Lomonosov Institute, (D10)
Loomis, D. A., S13*
Luce, F. C., M168
Lumsden, T. H., F106*
Lundblad, E., C70*
Lunev, V. I., L47
Lupardo, R. F., M52*
Lysaght, V. E., N35

M

McGlory, H., C40
McGregor, K., V14
Machida, S., N8
McIntire, H. O., R3
McKee, R. L., G31, G66
Mader, W., B53
Mägerle, K., F85*
Maier, A. F., T20
Makino, H., F39
Makovichuk, Yu. I., B15
Manchester University, (F349)
Mangold, W., C48*
Mannard, G. W., A48
Mansard, B., G16*
Maree, B. D., T102
Marinace, J. C., M128*
Markotan, R. J., F23*
Marriner, R. S., N36
Marsden, P., F352, M156, M190
Marshall, D., B35*
Marshintsev, V. K., T93
Marten, K. H., V8
Marududin, A. A., A56
Marx, C., U15
Masch, W., N15
Maslov, Ye. H., (T49)
Mason, J. A., F53*
Mason, J. H., B34*, C24*
Mattison, P. L., F339
Mayer, A., M176*
Mazil, S., G12
Mellor, F., M143*
Meen, V. B., T55
Meinel, A. B., S13*
Mendel, E., G54
Messerschmidt, S., G83*
Metzger, L. H., M164*
Meyding, L., N37
Meyer, E., S9*, S35*
Meyer, F. F., (V19)
Meyer, H. O. A., A62
Meyer, H.-R., (V10)
Meyer, K., N43
Meyrat, L., Q14*
Micheletti, G. F., F37
Mickas, G., F326*
Midsukara, M., H16
Mieszkis, K. W., G59*
Mikhal'chenko, P. S., M153
Mikoszewski, J., N38
Miles, E. R., T89
Militzer, R. W., G35*, G82*
Miller, H. C., C34*, C44*, C96* M118*, M162*
Miller, S. F., E75*
Miller, W. C., (V3)
Mil'shtein, M. Z., G53
Minaire, C., N9
Mineralogical Association of Canada, (A48)
Mironoff, N., H24
Misson, G. W., M149*
Mitchell, D. G., Q19
Mitrofanov, V. G., F103
Mitsui, M., F324*

Mittlacher, H., F77*, F327*
Miwa, S., C31
Miyoshi, A., B39
Moberg, K. A., G15*
Molins, D. W., E30*
Montag, G., H14
Mooney, C. F., D26*
Moore, R. F., E9, E42, F130
Mora, A., C64*
Morov, A. P., V9
Morozov, B. I., S20
Moscow Automechanical Institute. (D34)
Moscow Electronic Engineering Institute (MIEM). (M63)
Moscow Exhibition. (F186), (F187)
Moscow Geological Exploration Institute. L5
Mossahebi, M., M61
Motinot, E., M151
Mouradian, R. R. M., E79*
Mühlhaus, L., T124
Mueller, G., T17
Meuller, J. A., F297
Müller, K. F., B53
Müller, M., C73*
Müller, O., (L70)
Muller, H. R., (V10)
Muller, T., F155*
Mumbach, N. R., B24*
Munro, D. J., L38
Muraca, R. F., A59*
Murai, T., H18
Murakami, K., B45
Murovskii, V. A., C10
Murphy, R. T., C67*
Muta, A., B9*, B21*, B50*

N

NIIAlmaz. (E83)
Nadezhdina, N. V., F183
Naigas, L. M., M120, M188
Nakamura, N., G84*
Nakayama, N., T59, T74
Namba, S., G102
Namiki, K., L20
National Technical Conference, American Society for Abrasive Methods. (F64), (S1), (T76)
Naumann, W., F285*
Naville, R., D22
Nedelin, Yu. I., G93
Nelson, A., V15
Nelson, K. D., V15
Nesper, L., G4
Nestor, L. R., C92*
Neugebauer, W., B30*
Neukirchner, W., F301*
Newey, K. G., F283*
Nicolson, K. M., M104*
Niedzielski, R. M., S12*
Nikolayevich, V., (T96)
Nikulin, M. I., (T49)
Nilsson, G., (M83)
Nitsche, H., (V19)
Nixdorf, J., B36
Niemiec, S. M., M35*, M38*
Niesse, J. E., F241
Nikitin, A. V., A52
Nohejl, A., F171*
Norwood, V. G. C., T91
Notter, A., (F94), H1
Novikov, G. P., L79
Nyenhuis, H. A., S25*
Nyquist, G., (M83)

O

Office Controller of Mines. (V6)
Oganesyan, M., M150
Ogura, B17*, B62*
Ohringer, P., F308*
Oka, A., R2*
Olliver, J. G., L26, L27
Op Het Veld, A., G11
Opitz, G., F301*
Opitz, H., F189, (F290), F347
Orain, M., F208*
Orlov, I. F., K8*
Osipov, A., E6
Ostertag, H., (V10)
Ota, E., F127
Ott, A., E44
Owens, I. E., M85
Oxford, Sr, C. J., F52*

P

PERA *see* **Production Engineering Research Association of Great Britain**
Pahlitzsch, G., E46, F96, F248, H8, J10, J14, M157, S15, S22, S23, (V10)
Paillard, M. J., H25
Palii, P. A., L81
Pálka, V., F320
Palmquist, A., T108
Papke, F., N13*
Parfenov, V. P., F98
Park Lane Hotel. (M20)
Parola, J., T69*
Parrella, A. T., F107*
Parsons, M. C., G83*
Patel, A. R., A2, A5, A57, A61, A71
Patel, S. M., A71
Patratev, A. G., M63
Patzschewitz, G., F306*
Pederson, H., P4*
Pein, W., (V10)
Peklenik, J., N17
Pelizzari, E., M25
Pell, E., M70*
Per, A. G., M3, M155
Pereljozen, M. A., M120
Perel'roizen, M. A., M188
Perkins, A. J., M50*
Perm Polytechnic Institute. (G91)
Pernack, F., E75*
Peterson, A. V., F64
Petik, F., N44
Petit-Le Du, G., B26*
Petkof, B., (V3)
Pett, E. A., B35*
Petzow, G., B28
Phillippsen, H., G38*
Phillips, P18
Pieper, E., M76*
Pieper, R., (V19)
Pilipchenko, F. L., L28
Pionke, G., M72*, M161*
Pistorius, C. W. F. T., T75
Platz, W., F287*
Plekhanov, M. I., L18
Plotnikov, V. G., L17
Plotnikova, M. I., T71, T72
Pluzhnik, V. I., J16
Podporina, F. K., T42
Poetter, E., K18
Polish Science Academy, Electronic Institute. (T118)
Pollock, C., D18, F59, F197, G57
Pomey, G., N46
Pomey, J., N45
Pond, J. B., T77
Ponomatev, L. D., T49
Popper, P., M135
Potapov, S. V., T1
Potemkin, V. I., F125
Potthoff, W., G6
Potthoff, H. W., F36
Pough, F. H., T104, T129, T130
Prexl, R., N24
Price, R. E., E39*, F79*, F149*, F165*, F265*, F267*, F281*, F354*
Price, R. L., F346
Price, T. B., L24*
Prior, S., M92*
Production Engineering Research Association of Great Britain (PERA). (D2), (D10), (E53), (F11), (F98), (F100), (F103), (F183), (F186), (F187), (G9), (G39), (G63), (H32), (M63), (M65), (N40), (N62), (R4), (S20), (T82)
Production Grinding Seminar. (F348)
Prokhorchik, S. M., M87
Prokopchuk, B. I., T41
Prowse, D. H., (T10)
Prüter, H. G., H27*
Pryakhin, N. P., H32
Psarev, V. I., B15
Pühler, F., (V19)

Q

Quanstrom, R. L., F176, F223
Quiney, R. G., (N10)

R

Rabbe, P., N46
Radtke, C. J., E75*
Rae, F. H., F54
Raine, T., B59*
Rakavoskii, V. S., R4
Ramachandran, N., A57, A61
Randlett, E. A., G17*
Ratiu, M., N24, N25
Ratterman, E., F126
Raynal, J., L71*, L76*
Reason, R. E., N14*, N23*, P5*
Reeka, D., F298
Rehling, E., F313
Reichenbach, G. S., (F191), F225
Reinhart, H., F195
Reinhold, R., H31
Reis, B., T122
Reith, A., M186
Renard, B., L71*, L76*
Render, L., F4, F247, F340
Reppin, G., E37*, E40*
Reznikov, A. N., F250, N40
Rhoades, J. M., F173*
Rhodes, H. W., M55*
Rich, J., B47*
Richards, T. Z., F315
Richter, H. P., F248, J10
Rickenmann, A., F214*
Riessland, E., F301*
Rizvanov, F. F., G72
Robb, W. L., B22*
Roberts, R. A., A35
Roberts, R. W., C106*
Robertson, R. H. S., B48*
Robinson, J. B., L52
Robinson, R. L., F359*
Robischung, P. J., F288*, H3*, H21*, H34*
Rolff, A., T90
Rolseth, H. C., S4*
Romanchuck, V. A., G72
Romanov, V. L., F131
Romanowitz, C. M., T26
Roney, R. N., F17*
Rose, (A9)
Rosenberger, R., H13
Rosendale, F. L., M68*
Rossow, E., N53
Roulier, A., M108*

Roulier, G., M108*
Rouy, A. L. M. A., N6*
Rowlands, D., M60
Rowley, A. S., F204*
Rowstron, G. O., N7*
Rozhkov, I. S., V9
Rudenko, A. P., A76
Ruderfer, M., F308*
Rue, C. V., C15*, C90*
Rule, G. B., E49*
Rule, R. A., (F182)
Rusakov, A. I., M109
Ruth, D. H., E2*
Rutt, R. D., F152*
Ruzicka, P., A36, A37
Ryan, A. B., F246*

S

Sabine, D. H., E36*
Sabre, D. R., M140*
Sadebeck, (A9)
Sagarda, A. A., F278, F292
Sahagian, C. S., T38, T73
Saito, S., A17
Saller, X., T131
Salmanov, A. N., N2*, N52*, P25*
Salmon, A., M147*
Saltykov, O. G., T71, T72
Sanderson, J., M68*
Sandford, J., (F156)
Sandford, J. E., F184, T98
Sandin, A., T97
Sarkison, A. G., H22
Savage, R. H., C36*
Savchenko, Z. Yu., L6
Sawin, R. W., C17
Scan, A. J., N64
Scandinavian Stone Conference, (M80)
Schaumann, R., (V19)
Scherff, K., F279
Schilling, C. W., F81*
Schimmer, R., M101*
Schimöller, H., N34
Schink, K., F314
Schleich, F., S27*
Schlössin, H. H., A54
Schlossmacher, K., T36
Schmermund, A., F86*, F206*
Schmidt, H., E44
Schmidt, P., J6
Schmitt, J., B12, B16, B23
Schmitt, R., E46
Schnabel, H. W., C9*, C25*, C84*
Schneider, E. J., J7
Schnizler, A., F357*
Schopper, H., F13, (V10)
Schroeder, J. B., S13*
Schroth, E. J., M6*
Schütte, M., (V19)
Schütz, W., C29, J19
Schuhmacher, G., B25*
Schuman, A., M37*, M57*
Schweizer, W., F312
Scientific Institute for Research on Stone and Silicon Products (M150)
Scott, A. C., L1
Seal, M., A47, T136
Sebald, H., C35*
Seitzinger, E., M8*
Selekh, V. F., C10, F35
Seminar on Stone Processing, (M25)
Semko, M. F., G49
Senecky, L., H17*
Senior, B. W., T15*
Serebrenikov, A. S., F229
Serebrennick, Yu. B., G91
Setaka, N., B52
Seymour, G. J., M7*
Seymour, J. A., F263*
Shadmon, A., V6
Shah, R., T98
Sharp, R., F132, K2
Shcherbina, V. I., G94
Shchukin, V. N., T86
Sheenan, W., C27*
Shevchenko, I. E., L63
Shewmake, P., L74*
Shigematsu, H., F139, F155
Shimizu, K., P17
Shiozawa, M., B9*, B21*, B50*
Shulman, L. A., A49
Sickle, V. C., C9*, C84*
Sieger, J. S., M169
Sikora, R., M41, M191
Silin, R. I., N12
Silvey, E. R., F262*
Silvey, K. A., F262*
Simonis, D. W., F97
Singhal, P. D., F9
Sinkankas, J., A42, Q18, Q32
Skripko, G. F., J16
Sladkov, V. I., L46
Slavik, M., F277
Smekens, R., M185
Smit, J., S2
Smith, J., (P2)
Smith, J. A., A28
Smith, L. I., F73
Smith, M, J. A., A66
Smith, N. R., D13, E80, F348, (T10)
Smith, P. D. R., G22*
Smudki, P. A., B61*
Snik, J. F., J4
Snoeys, R., F70, F199
Snyder, J. Y., G80*, F329*
Sobolev, E. V., A77, T4
Soboliev, E. B., A55
Soby, W., P20*
Somerton, W. H., M61
Songhurst, C. J., E18*
Sorokoletov, L. A., F100
Soviet Central Research Institute for Machines and Technology (D8)
Societ Geology, (T63)
Sovkin, V. E., N2*
Sovkin, V. F., P25*
Sowkin, W. S., N52*
Spence, A. R., N64
Spick, P. T., F353*
Spiro, P., C98
Spooner, H., F101
Spragg, R. C., N5*, N42*, P12*
Spur, G., M189
Stade, G., E24, E37*, E40*, F260*, F330*
Ständer, H., H36
Stafford, J. S., B31
Stahn, G., F260*
Stan, M., F216*
Stanek, J., H29, M99
Stanford Research Institute, (A10)
Stanford University, (D4)
Stanko, W. S., A78
Stanley, V. W., P22
Stasovskaya, V. V., R5
Staudinger, H., F337, (V19)
Steigerwald, K.-H., S9*, S35*
Stein, H. A., B34*, C24*
Steinmetz, K., M119
Stensindustrins, Forskninginstitut, (M83)
Stephenson, N. D., F321*
Sterling, H. F., M100*
Stern, A., M54*, M141*
Stevens Jr, R. F., (V3)
Stoliarov, A. M., M91*
Storch, K., F212*
Story, R. W., F180
Stout, G. M., Q4*
Striepe, F., E22*
Strohfeld, W., G28
Strong, H. M., A38, A44
Suddarth, J. M., M53*
Sugaya, H., M67
Sukhushina, I. S., A11
Sukuzi, S., F39
Sumaneev, N. N., L18
Sunagawa, I., A29
Sunnen, J., G121*
Superhard Material Institute *see* **Ukrainian Institute of Superhard Materials**
Suss, M., M56*
Susse, C., T101*
Sutton, D. E., H21*
Suzuki, H., B38, B42, B43, B46, B57
Sverak, A., F170*
Swan, R. J., G47*, G70*, (T10)
Sychev, Yu. I., M109
Szek, J., N21*

T

Tabor, D., V16
Takasu, S., A18
Tamakohri, K., G58
Tamayama, M., T46
Tanaka, I., C58
Tanaka, Y., C41
Tarasov, L. P., F65, F136
Tarkan, S. E., B27*, R7*
Taurone, D. T., M86
Tavernier, R., M184
Taylor, E. N., P12*
Taylor, F. N., N42*
Technical University, Aachen, (F189), (F298)
Technische Hochschule, Brunswick, (V8)
Temple, W. K., E17*, F50*, F169*
Terry, W. M., L43*
Theisen, V., N60, Q7, T19, T51, T80
Theuerkauff-Liederwald, A.-E., M122
Theuerkauff-Liderwald, A.-E. M122
Thomas, E. R., F53*
Thomas, F., F178
Thompson, E. A., F162*
Thorn, N. E., E77*
Thunus, G., F199
Thurm, R., T117
Tikhonenko, K. A., A49
Tikhonov, Ye. S., E83
Tillander, H., Q30
Timofeev, Ye. I., L8
Todd, A. G., B31
Tokarev, A. A., D27, D34
Tolansky, S., A15, P7, T64
Tolbert, C. E., F149*, F165*, F324*
Tomita, K., T56
Tractor and Agricultural Machinery Research Institute, (G10)
Trancu, T., M46
Trancu, T. C., M115
Trent, E. M., C100*, F353*
Treverton, R. W., E21*
Trofimov, V. C., T29
Trofimov, V. S., T41
Tydings, J. E., A14*
Tyson, W. R., A34

U

UGIMA (Marble Association), (M183)
Ujvari, I., N21*
Ukrainian Institute for Superhard Synthetic Materials, (F292), (M120), (T28), (T96)

Ullery Jr, L. R., S30*
US Army Electronics Research & Development Laboratory, (A14)
UK Atomic Energy Authority, S11*
US Bureau of Mines, (L84), V3
US Department of the Interior, V3
United States of America, A14*, B54*, G61*
University of Arizona Foundation, S13*
University of Manchester, (F349)
University of Warwick, A28

V

V.D.I. Conference, (V19)
VITR *see* **All Union Institute for Prospecting Techniques**
Vainshtein, B. N., G91
Valet, F., N22*
Valli, M., F7, F29, F95, F153, F311
Valliergue, J. E., M96*
Van Daal, H. J., C76*, C85*
Van Hasselt, R., N18
Van Loan, P. R., B13
Van Oevelen, E., A32
Vanderslice, T. A., C57*, C66*, C79*
Vanek, M., F171*
Vanripper, C., F12
Vardanyan, K., M150
Varga, L., N21*
Varma, C. K. R., A22, A23, A26, A27, A53
Veldhuizen, E. C., G18, G118, M24
Velzeboer, P. Th., T43
Venesia, A., F303*
Vereshchagin, L. F., A11, (A25)
Verf, O., M154
Vermeeren, M. P., E41*
Vershinin, Yu. I., L6, L80
Vicenza, Biannual Marble Fair, (M25)
Victory, F. C., E9, E42, F130
Villat, M., F328*
Villers, A., T132
Villers, P., P10*
Visser, A., H8, S22
Vitrae, J. M., L59*
Vodar, B., T101*
Völler, R., F112*
Vogel, S., E56
Voit, (M41)
Volk, D., M105*
von Eichborn, J. L., F93
von Tersch, A. L., G25*
Voss, R., C7*, C28*
Vozdvichenskii, B. I., L5

W

Wahlter, H. G., F237
Waite, G. G., Q26
Wakatsuki, M., A65*
Walker, W. C., A35
Wallers, M. P. E., M146*
Walsh, R. J., G67*
Wapler, H., M16
Ward, H., E13*
Ward, M. M., F282*
Ward, S. S., F20*, F76*
Ware, G. C., (V3)
Warren, J. L., A40
Warren, S. J., H2*
Watson, G. R., B32*
Weber, K., N55
Weber, R., (V10)
Weber, W., M76*
Wedepohl, P. T., T15*
Weiler, W., N56
Weinstein, A. J., N6*
Weiss, H., H15
Weiss, L., H28
Weiss, S. I., C95*
Wellborn, W. W., E59*
Wendt, F., F190
Wentorf Jr, R. G., B56*
Wentorf, R. H., T18
Wentorf, Jr, R. H., A4*, A8*, A20*, C36*
Wenzler, H., M70*
Wertheimer, H., G77*
West, W., G57, G119
Westenberger, H., C46*
Westmeyer, H., S8*, S14*
Weston, R. G., F26*
White, H., F319
White, M. E., L42*
White, V. R., L54*
Whittle, Sir F., L58*, L85*
Wick, C. H., E32
Wickstead, J., F253*
Wiedemann, H., K4*
Wiederholt, W., V7
Wild, H., E55, E81
Wild, R. K., A24
Will, H. A., A78
Wills, D. B., F236
Winter, W., (V7)
Woeser, B., F62
Wood, J. G., N36
World Petroleum Congress, 7th, (L3)
Wright, J. E., G24*
Wright, W. J., D12
Wrobbel, W., F357*
Wulf, J., M101*
Wuttkowski, H., N29
Wylde, S. J., M48*

Y

Yamamoto, T., B57
Yano, H., N31, N32, N33
Yarnell, I. L., A40
Yatabe, Y., C37*
Yegorov, S. V., (T49)
Yoshikawa, H., B14, C52
Yoshinaga, H., F57
Yoshizawa, T., N57
Young, B., A7, M142*
Young, R. E., E74*
Young, R. W., M123*
Youngblood, C. W., N65*
Youssef, H., S15, S23

Z

Zachek, J. P., M127*
Zakharenko, I. P., G53
Zane, R., G97*
Zaporozhe Mechanical Engineering Institute, (F11)
Zaritskii, I. M., A49
Zowodni, J. T., F23*
Zeise, G., E20*
Zeitlin, A., T23*, T85*
Zhabin, A. G., T39
Zhitkov, Yu. V., F229
Zimmermann, A. W., F45
Zmau, M., F216*
Zschommler, W., M31
Zubar, V. P., D29
Zubkov, T. E., L21
Zubkov, V. M., T82, T83
Zug, G., M189
Zveder, L. N., T63, T92
Zwick, K., N20*
Zyuzin, A13

IDA TRADE NAME AND COMPANY INDEX

A

AB Malcus Holmquist, F305*
Abrasive Developments Ltd, J13*
Abrasive Diamond Tool Co, U7
Abrasive Dressing Tool Co, E59*
Accurate Diamond Tool Co, (D21)
Acne Abrasive Co, E23*
Advanced Diamond Technology Ltd, (C72)
AGATHON, (H4)
AIT Industries Inc, M141*
AIT Machine Co, M54*
Alcan Industries Ltd, (D16)
Aldridge Tool & Engineering Co Ltd, (F220)
Allied Chemical Corp. (A10), A59
Allemann Präzisionsmaschinenbau, Ets, N61*
Alston Tool & Gauge Co Ltd, E18*
American Air Filter (Great Britain) Ltd, (J3)
American Metal Products Co, C62*
American Optical Co, M125*
AMF International Ltd, E13*
Ammco Tools Inc, F209*
Amplex Corp of America, (D19)
Apperley Honing Ltd, G22*
Aremco Products Inc. (M89)
Armour & Co, C9*, C25*, C84*
Asahi Glass Co Ltd, M124*
ASEA, (F291), (T97)
Associated Testing Laboratories, (M27)
ASTRO-MET, (G111)
Atlas-Copco AB, G15*, L49*
Avoco Lycoming Division Plant, (T127)
AVIC, (F309)

B

Barnes Drill Co, G32*, G68*, G101*
Barnes Engineering Co, P10*
Barogenics Inc, T16*, T23*, T37*, T61*, T85*, T100*
Barre, Ets Paul, C38*
Batuobinsk Expedition, T7
Bausch & Lomb Inc, D26*, (T117)

BAXTRON, (B44)
Bay State Abrasive Products, C65*
BECK, (T117)
BEF Engineering Ltd, (E7)
Bell Telephone Laboratories, (P16)
Bendix Corp, F257*
Bennett Tools Ltd, (F10), (F67)
Bentley Industrial Corp, (G55)
Beteiligungs- & Verwaltungs GmbH, B25*
Beuth-Vertrieb GmbH, (F224)
Biebuyck, Ets, M97*, M139*, M144*
Bielefelder Union Bruno Koch, F299*
BLANCHARD, (M64)
Bliss & Laughlin Steel Co, (F45)
Blumenthal, O., M163*
Boart & Hard Metal Products SA Ltd, M142*
Böhler & Co AG, Gebr, B41*
Boonton Moulding Co, (M1)
Boyles Bros Drilling Co Ltd, L2, (L16), L40*
Branson Instruments Inc, P8*, P9*
Branson Sonic Power Co, (S26)
Bristol Siddeley Engines Ltd, L58*, L85*
British Tap & Die Co Ltd, F154*
Brock & Co Ltd, L. & T. I., (F32)
Brown & Wade Ltd, (F30)
Bryant Grinding Co, (E54)
Büehler Ltd, G45, G48*
Bulova Watch Co, (P19)
Bureau de Recherches Géologiques et Minières, L57*, L59*

C

CAPCO HAMCO (DSIA), (M47)
Caplin Engineering Co Ltd, (M47)
Carbidex Corp, (F249)
Carborundum Co, B34*, B61*, C7*, C14*, C24*, C26*, C28*, C43*, C56*, (F45), F152*, F153*, F217*, F307*, F325*
Carduro-Hartmetall AG, F328*
CASSINI, (M82)
Cavitron Ultrasonic Inc, F51*
CENTA-FORM, (E54)
Central Selling Organization, (V11)
Centre Electronique Horloger SA, D31*
Centre National de la Recherche Scientifique, T101*
Ceské Zavody Motocyklové Narodni Podnik, F171*
Champion Mfg Co, M177*
Chance-Pilkington Optical Works (M64)
Chandler Evans Control Systems Division, (F1)
Chevrolets, (E32)
Chevron Research Co, L12*, L65*, M104*
Christensen Diamond Products Co, J21*, (M62), U15
Christensen Diamond Products Co (France), M130*
Chromalloy American Corp, R7*
Chromalloy Corp, B27*, D6*
Churchill Machine Tool Co, (F102)
Cimat SpA, (E25), (F37)
CIMATIC RPC/S, (E25)
Cincinnati Milling Machine Co, E52*, F21*, (H35)
Cincinnati-Chomienne, F24*
Citroen, S. A. André, G81*
CLA, (H5)
Clark Machine Tool Co, A. J., (F200)
Clipper Manufacturing Co, (M27), M55*
Coburn Manufacturing Co, M53*
Codman Co, F. L. & J. C., C27*
COLD-GRIND, (F43)
'COLOUR GRADER', (T51)
Colt Heating & Ventilating Co, (M158), (M170)
Commissariat à l'Energie Atomique, F203*, G16*, S6*, S18*
Cie Norton, F55*, F87*
Compagnie de Saint -Gobain, M10*, M69*, M103*
Concrete Sawing Equipment Ltd, (M62)
CONSAW, (M98)
Consol Tools Ltd, (E35)
Construction de Clichy, (E72)
Consultants Bureau Inc, (F228)
Continental Machine Inc, E50*
Continental Oil Co, L33*
Convair Div, General Dynamic Corp, (D23)
Corning Glass Works, M33*, M132*
Craelius Co Ltd, (L51)
CRAVEN, (E27)
Crystal Division, Standard Telephones & Cables Ltd, (M138)

D

Dampax Corp (Pty) Ltd, Q29*
DARYA-I-NUR, (T53)
DDSM Tools Ltd, (J15)
De Beers, (C11), (D21), (F31), (F184), (F291), (G64), (G111), (G112), (M77), (M110), (P19)
  Companies, (V2)
  Grinding Centre, Diamond Research Laboratory, (F179)
  Group, (T52)
  Industrial Diamond Division, (F94), (F343), (F348), (M25), (M83), (M183)
Décamps et Fils, Ets D., M145*
Delapena & Son Ltd, (T11)
Delapena Honing Equipment Ltd, G79*
Dembitzer, Ateliers Jacques, (F94)
Denki Kagaku Kogyo Kabushiki Kaisha, B17*, B62*
Dentool Ltd, M17, (M59)
Deutsche Edelstahlwerke AG, B33*, B40*, B51*
Deutsche Gold- & Silber-Scheideanstalt vorm Roessler, B30*
Deutsche Norton GmbH, C93*, M44
DIADUR AB, C22*, C60*, C104*
DIAFORM, (F90), (F273), (F348)
Diaform Ltd, (F277)
Diagrind Inc, U3
Diagrit Grinding Co Ltd, C12, (D5), U5, U9, U11, U12
DIAGRIT-SIMONDS, (D5), (U5)
Diamant Boart SA, U8, U10
Diamant Boart SA (France), (M167)
Diamant-Gesselschaft Tesch, U13
Diamond & Boart Products (Australia), (F123)
Diamond Syndicate, (V2)
DIAMONDITE, (T51)
DIA SET, (M27)
DIPROFIL, (G56)
DoAll Co (M2)
DORMER 99 SUBLAND, (F157)
DORMER DRILLS, (F60)
DUPONT, (Q18), (Q32)
Dupont de Nemours & Co, E. I., A58, A82*, A83* A84*, B11*, (B44), C102*, G14*, G78*, G98*, R6*
Du Pont Laboratories, (A42)
Dujardin & Co, Metallographische Anstalt, P. F., (G28)
DXDA-MC, (F194)

E

Ednalite Corp, N6*
Ehrenreich & Cie, A., D30*
ELB, (E5)
Electrical & Musical Industries Ltd, P20*
Electron Beam Devices Corp, S25*
ELECTRONIC-COLORIMETER, (T51)
Elektrische Glühlampen mbH, K4*
Elgin National Watch Co, (C40), U1, U4
Elma, Hans Schmidbauer, (P14)
Elsner Verlagsgesellschaft, Otto (V18)
Engelhard Hanovia Inc, M49*, M93* M123*, M174*
Engis Equipment Co, J7, (N11)
Engis Ltd, G47*, G70*, (K16), (G115)
English Drilling Equipment Co Ltd, (L31)
EROP, *see* Etudes et Réalisation d'Onis Précision
Esso Production Research Co, L10*, L11*, L29*, L56*, L72*
Esso's Exploration Australia Inc, (L19)
Esterol AG, C82*
Etudes et Réalisation d'Onis Précision EROP, F255*, (F309)

F

Fabrique Parisienne de Mèches Américaines et d'Outillage de Précision, C86*
Fafnir Bearing Co, G86*
Farrel Corp, F107*, F159*, F358*
FEHR REFLECTION GONIOMETER (T126)
Feinmechanik GmbH, N20*
Feldmühle AG, C91*
Fellows Gear Shaper Co, F82*
Fischer, Hans, (G89)
Flinchbaugh Co, (G57)
Fontana Arte, (M46)
Ford Motor Co Ltd, G60*
FORMAKER, (F192)
Fortuna-Werke Spezialmaschinenfabrik AG, F112*, N19*
Fritsch KG, Dr., K13
Fujitsu Ltd, F302*

G

GAM, (Q22), (Q27)
Gem Trade Laboratories, (Q15)
General Dynamics Corp, Convair Div, (D23)
General Electric Co, A3*, A4*, A8*, A20*, A21*, A46*, (B2), B22*, C36*, C57*, C61*, C66*, C79*, C105*, C106*, F126, F173*, H12*, M58*, (P1), T53*, T66*, T67*, T139*
General Motors Corp, H26*
GIA Proportionscope, (N1)
Gillette Co, F254*
Gilson, Pierre, (Q25)
Glaenzer Spicer SA, F208*
Gleason Works, E21*, F264*, P4*
Goetzewerke Friedrich Goetze, G38*
Gor'kii Motor Car Works, (F183)
GRAVINETTE, (P14)

H

Habit Diamond Tooling Co Ltd, (F140), (F154)
HABIT R-2, (F152)
Hammond Machinery Builders Inc, F288*, H3*, H21*, H34*

Heald Machine Co, E12*, E49*, F26*, F49*, F147*, F163*, F284*
Heidenreich & Harbeck, D15*
Herbert Group, (F251)
Hitachi Kasei Kogyo Kabushiki Kaisha, B3*
Hitachi Ltd, B6*
Hobson Ltd, H. M., F268*, F331*
Hoffman Manufacuring Co Ltd, E8
Holman Bros Ltd, (F317)
Hommelwerke GmbH, (E44), (F277), F332*
Honsberg Gebr, (F344)
Howard Aiken Industries, M34*
Hoy Carbides Ltd, F20*, F76*
Hurth Maschinen- und Zahnrad-Fabrik, Carl, E71*, F207*, G34*
Hydrol Chemical Co Ltd, F150*, F166*

I

ICI Ltd, G59*
Impregnated Diamond Products Ltd, (E28)
Ina-Roulements, F25*
Industrias Bonastre SA, (G90)
Industrial Distributors (Sales) Ltd, R1*, R2*
Industrien Handelsonderneming Bovi, M117*
INM Industries Corp, C63*, M52*
Institut Français du Pétrole, T69*
International Business Machines Corp, M128*, S17*
INTERNATIONAL HARVESTER, (F64)
International Standard Electric Corp, Q17*
ITT Industries Inc, C53*, C90*, T202*

J

Jabo Optierk NV, (G118)
Jobling & Co Ltd, James A., M92*, M148*
Joisten & Kettenbaum, (G56)
JKO Cutters Ltd, (F5)
Jones & Shipman Ltd, A. A., F46*, F47*

K

Kabushiki Kaisha Hitachi Seisakusho, B3*, B9*, B21*, G84*, J18*
Kahle Engineering Co, M51*
Kaiser Aluminium & Chemical Corp, B8*
Kalibr Tool Factory, (F6)
Kennametal Inc, F89*
Kharkov Machine Tool Factory, (E16)
Kirner, Anton, (E14), (F226)
KK Hitachi Seisakusho, B50*
Klingelnberg Söhne, Ferd. W., E20*
Knight Taylor Ltd, (M98)
Kobe Steel Works Ltd, T14*
Kokusai Diamond Shoji Co Ltd, (K10)
Krüss, (T117)
Kugelfischer Georg Schafer & Co, G123*
Kugellagerfabrik, (F42)
KUHLMANN, (F200)
Kuibyshevsky Politekhnichsky Institute in V. V. Kuibysheva, N2*, N52*, P25*

L

Laboratoires d'Electronique et de Physique Appliquées L. E. P., F151*, F167*, M147*
Landis Gendron SA, F215*
Landis Tool Co, C68*, E2*, E39*, F19*, F79*, F142*, F149*, F165*, F213*, F261*, F265*, F267*, F281*, F323*, F354*, F361*
Lavallee & Ide Inc, E36*
Leitz GmbH, Ernst, N58*, (T138)
Leningrad Steel Rolling Factory (F231)
Lenzen & Stormer KG, (V20)
Libbey-Owens-Ford Glass Co, M106*, M131*, M192*
Licentia Patent-Verwaltungs GmbH, M101*
Lightning Fasteners Ltd, F115*
Lindner & Co, Herbert, E37*, E40*, F260*, F330*, F355*
Lippert, Fa Heinrich, C48*
Lisle Corp, G25*
Loh KG Optikmaschinenfabrik, Wilhelm, M5*, M133*, (T138)
Longyear Co, E. J., U14
Luke & Spencer Ltd, F141*
Lumsden Machine Co Ltd, F106*
Lux & Co, (Q21), (Q22), (Q27)
LVDT, (P23)

M

Maag-Zahnräder- & Maschinen AG, F148*, F164*
Maggi, Georgini, (M84)
Majestic Diamond Tool Co, (M1)
Mackay & Schnellmann Ltd, L25*
Mallory & Co Inc, P. R., F81*
Maschinenfabrik Esterer, AG, M76*
Maschinenfabrik Kapp & Co, E23*
Maschinenfabrik Wenzler, AG, M70*
MATRIX, (S52)
MECAPOL, (G28)
MECAPREX, (G28)
MECATOME, (G28)
Meller Co, Adolph, (G105)
Metabowerke KG Closs, Rauch & Schnizler, F357*
Metalexport, (F313)
Metallgesellschaft AG, C46*
Metalliding, (B2)
Metaltronics Inc, B7*
Metro-Cutanit Ltd, B59*
Meyrat & Luisoni, Q14*
Michigan Tool Co, F326*
Micromatic Hone Corp, C67*, G13*, G17*, G35*, (G40), G82*, G96*, G107*, N65*
Micropietra di Dario Biaggi, M107*
MICROREX, (F309)
Micro Topography Laboratory, N11
MICROTEST SIGMA, (N9)
Midland Rollmakers Ltd, (E27)
Micron Machine Works Ltd, D22
Mill Polishing Corp, (F221)
Miller Falls Co, (D21)
Mindrill, (L4)
Minganti & Co SpA, Guiseppe, F160*
Ministerial Industrici Constructislor de Masini, F216*
Minnesota Mining & Manufacturing Co, C33*, C92*
Minsk Motor Car Works, (D14)
Mitsubishi Denki Kabushiki-Kaisha, H20*
MK Diamond Products, (Q19)
ML Aviation Co Ltd, (D11)
MOHOLE, (L5)
Molins Organization Ltd, E30*, F53*
MONA-HOBSON, (F40)
Monsanto Co, G67*
Moore Special Tool Co, (E42), (F130)
Mortagne du Nord, (M41)
MS & R Inc, E83*
MSO Maschinen- & Schleifmittelwerke AG, E3*, E41*, E73*, F212*
MSO-Werke, (F345)
MUDIA-AUTOMAT, (F227)
Müller KG, (G45)
Mullard Ltd, S34*
Muller, Georg, (F42)
MULTIDEX, (F140)

N

Naradi Narodni Podnik, C19*, C49*,
National Automatic Tool Co, G24*
National Broach & Machine Co, E48*, F75*
National Research & Development Corp, B47*, B49*, F286*, F300*
National Twist & Drill Co, F52*
Navan Products Inc, M50*
Naxos Union Schleifmittel- & Schleifmaschinenfabrik, F155*
Newall Engineering Co, E11*, F50*, F169*
Neyrpic, Ets, L62*
Nihon Genshiryoku Kenkyu-Sho, T133*
Nippon Electric Co Ltd, M74*, M75*
Norma-Hoffmann Bearing Co, Div of Universal American Co, F54*
Northrop Co, E74*
Norton Co, B10*, B32*, B35*, C5*, C6*, C23*, C54*, C81*, (E32), (F2), (F59), (F192), (F236), F263*, (F274), (F291), F356*, G57, G69*, M7*
Norton Technical Department, (F128)

O

Officine Meccaniche Gregori, M39*, M40*
Ohaus Scale Corp, (D33)
Oldsmobile Division of General Motors, (E10)
OPTIDRESS, (F27)
OPW (Orthogolazized-plane-wave) method, (A39)
Osaka Diamond Industries Co Ltd, (C1), (F57)
Osborn Manufacturing Co, C101*, C103*, C107*
Osoboe Konstruktorskoe Buro pro Proktorivaniyu Avtomatizatsu i Kontrolya i Elektroerozionnogo Oborudovania, K8*
Overbeck Fabrik für Schleifmaschinen, (G76)
Owen Ltd, R. W., (M29)

P

Pangborn Corp, J20*
Paragon Tool Die & Engng Co, (D7), (D9), (D17)
Patent-Treuhand Gesellschaft, K4*
Penn Scientific Products Co, (G43)
PERPRO, (D32)
Perrot & Aubertin, Ets., M129*
PETERSON PROJECTION SLIDE, (T135)
Philadelphia's Civic Centre, (T114)
Philips Co, (K2)
Philips Gloeilampenfabrieken, NV, C76*, C85*
Pilkington Bros Ltd, M161*
Phillips Petroleum Co, L22*
Pittsburgh Plate Glass Co, M149*
Posalux AG, (F227)
Precision Grinding Ltd, (E29), E77*, (F277)

Precision Products Div, Elgin National Watch Co, U1
Precision Scientific Corp of America, (G111)
PRESI (Procédés et Equipment pour les Sciences et l'Industrie), (G28)
Production Techniques Ltd, (M172)
Production Tool Alloy Co Ltd, (D32), (F31)
PROJECTORDRESS, (E29)

Q

QUINTUS, (T97)

R

Radio Corp of America, M176*
Rank Organisation Ltd, N5*, N14*, N42*, P21*
Rank Taylor Hobson Div, P12*
Rank Precision Industries Ltd, N5*, N7*, N14*, N23*, N42*, P5*, P12*
Rank Taylor Hobson Div, (D24), N5*, N14*, N42*, P12
RAUHTESTER, (N9)
RDA, (F31)
RDA-MC, (C13), (F194)
Reed International Inc, L60*
Régie Nationale des Usines Renault, C74*, F266*, (G71)
Reicherter, Georg, N22*
Reishauer AG, F214*
Republic Tool & Manufacturing Co, (F222)
Rigby & Sons Ltd, John, (G112)
Roditi Purchasing Co Ltd, (M29)
Ronzani SpA, A., M71*
ROTOCLONE, (J3)
Royal Radar Establishment, (M29)

S

Sandvik UK Ltd, (C2)
Sandvikens Jernverks AB, F78*, H27*
SANSEI-SS-4E, (F318)
S & B ALDRIDGE, (F220)
SCALOROT, (G28)
Schladitz-Whiskers AG, M102*
Sebald & Söhne, Hans, C35*
Secoblitz-Industria Meccanica, M71*
Servomatics Hydraulics (Guildford) Ltd, F211*, F321*
Sheffield Corp, F17*
Sheffield Twist Drill & Steel Co Ltd, E66*, (F60), (F157)
Shell Internationale Research Maatschappij, L61*, L75*
Shell Oil Co, L73*
SHORE, (N8)
Siemens AG, G87*, G100*, M116*
Siemens-Schuckertwerke AG, J8*, M56*
Sim SA, Ets, E64*, F219*
Simonds Abrasive Division, Wallace Murray Corp, (F294)
SIZEMATIC, (E72)
SLIM-LINE MICRO-SCRIBERS, (P3)
Smit & Co Inc, Anton, H2*
Smit & Fils, J. K., L35*
Société Alsacienne de Constructions Atomiques de Télécommunications et d'Electronique 'Alcatel', F218*
Société d'Electronique et d'Automatisme, M175*
Société Industrielle Bull-General Electric, G36*
Société des Lunetiers Cottet, Poichet, Temkine & Cie, M134*
Société Nationale Pétroles d'Aquitaine, L64*, L71*, L76*
Société Nouvelle de Roulements, G26*
Société Optique Télégig, C69*
SOPELEM, (N63)
SORTEX, (T8)
SpA Giuseppe Ratti Industria Ottica, M163*
SPANDAU-LINDNER, (F317)
Speedfam Corp, G33*, G99*, G108*, G117*
Spezialfabrik für Messgeräte und Prüfmaschinen, N22*
Standard Telephones & Cables Ltd, M100*
Crystal Division, (M138)
Standard Telecommunication Laboratories Ltd, (S21)
Stankoliniya Works, F131
Steigerwald, GmbH, K. H., S9*, S16*, S24*, S28*, S35*
Steigerwald Strahltechnik GmbH (K. H. Steigerwald GmbH), S24*, S28*
Stenkontoret, (M83)
Storen- & Maschinenfabrik Emil Schenker AG, F84*
Stork Dieselmotoren, (G18)
STRATADRILL, (L31)
Strojimport, (F313)
Stuart Davis Machines Ltd, (T11)
Studer, Fritz, (F277)
Sundstrand Corp, E19*
Sunnen Product Co, (G89)
SUNNEN HONING PROCESS, (G27)
Super-Cut Inc, C34*, C44* C96*, M35*, M38*, M118*, M160*, M162*, M164*, M179*
SYFODIA (Syndicat des Fabricants d'Outillage et de Produits à Base de Diamants), (M184)
Szerszamgepipari Muvek, F144*, N21*

T

Tages-Anzeiger für Stadt & Kanton Zürich AG, C73*
Technoimpex, (F313)
Technojewels Soc in Nome Colletivo di Seitzinger Ezios C, M8*
TEEG Research Inc, (F249)
Texaco Inc, L24*
Textron Inc, M126*
Thompson Mfg Co, Earl A., F162*
3M Company, Coated Abrasive Division, (G1)
Timken Roller Bearing Co, F109*, F258*
Tokyo Shibaura Electric Co Ltd, A65*, A69*, (A74), A81*, P30*
Toolmasters Ltd, C20*, C50*, (F273)
Tos Kurim Narodni Podnik, F170*
Toyoda Koki Kabushiki Kaisha, F324*
Toyota Motor Co Ltd, F302*
Trefimetaux, F304*
Triefus Abrasives, (C51)
Triplex Safety Glass Co Ltd, M72*, M193*
TsNIGRI, (L46)
Tysaman Machine Co Inc, D3*
Tyrolit-Schleifmittelwerke Swarovski KG, C16*, C47*

U

Uddeholm AB, U6
Ultra High Pressure Units, (T58), (T109)
Ulvsunda Verkstader AB, E78*, E84*, F114*, (F272), F280*
Ulyanovsk Instrument Factory, (F230)
Union Carbide Corp, B18*, B20*, B24*, G23*, S4*
United Aircraft Corp, B60*, S5*, S12*, S27*, S29*, S30*
United States Diamond Wheel Co, (F271)
United States Government, G116*
Universal American Corp, F22*
Norma-Hoffman Bearing Co, F54*
Universal Grinding Wheel Co Ltd, (E27), (E28), (F201)
UVA, (F272)

V

Valley Co Inc, B29*
Varian Associates, S3*
VEB Berliner Werkzeugmaschinenfabrik, (F313)
VEB Elektromat, F301*
VEB Grossdrehmaschinenbau '7 Oktober', E31*, E61*, E63*, E70*, E76*, E85*
VEB Halbleiterwerk Frankfurt (Oder), G122*
VEB Hartmetallwerk Immelborn, B55*
VEB Kabelwerk Köpenick, K5*
VEB Maschinenfabrik John Schehr, (F313)
VEB Mikromat, Dresden, F285*, F306*, (F313)
VEB Mühlenbau, Dresden, F77*, F327*
VEB Schleifmaschinenwerk, (F313)
V. G. BOND, (C11), (F57)
Vickers Instruments Ltd, (N67)
Victory Diamond Tool Co Inc, (F43)
Viscomat-Geräte GmbH, (E44)
Vishera Geological Prospecting Expedition, T2
Voigtländer AG, N13*
Volkswagen (E54)
Vscoiuzny Nauchne Issledovatelsky Institut Strotelnykh Materialov Akademii Stroitelstva i Arkhitekturi SSSR, M91*
Vsesojuzny Nauchno-Issledovatelsky Institut Burovoi Tekniki, L53*
Vuma Vyskumny ustav mechanizacie a automatizacie, H17*

W

Wakefield Corp, C15*
Waldrich, GmbH, H. A., E65*, F80*, F119*, F269*
Wall Colmonoy Corp, C83*, C94*
Wallace Murray Corp, Simond Abrasive Div, (F294)
Wendt KG, Fritz, U2, U16
Werkzeugmaschinenfabrik L. Kellenberger & Co, (F27)
Wernicke & Co, KG, M9*
Western Electric Co, (M4)
WESTWIND, (F41)
White Co, S. S., S19*
Wickman Ltd, (F277)
Wickman Wimet Ltd, C100*, F353*
Wilmot-Breeden Ltd, P6*
Wylde Ltd, J. & S., M48*

Y

Yakutia Geological Directorate, T7

Z

Zahnradfabrik Friedrichshafen AG, E22*
ZEISS, (T117)
ZEISS SLIT LAMP, (T131)

KEY TO ABSTRACTS—

PROPERTIES OF DIAMOND

Nos.	Pages	
A 1- 4	35	: January
A 5- 8	82	: February
A 9- 14	132	: March
A 15- 21	183	: April
A 22- 30	229-230	: May
A 31- 38	277	: June
A 39- 46	320-321	: July
A 47- 59	368-369	: August
A 60- 65	418	: September
A 66- 69	462	: October
A 70- 72	508	: November
A 73- 84	556-557	: December

PROPERTIES OF HARD MATERIALS

Nos.	Pages	
B 1- 3	35- 36	: January
B 4- 11	82- 83	: February
B 12	133	: March
B 13- 18	184	: April
B 19- 22	230	: May
B 23- 27	278	: June
B 28- 30	321	: July
B 31- 35	369	: August
B 36- 41	419	: September
B 42- 51	462-463	: October
B 52- 56	508-509	: November
B 57- 62	557-558	: December

TOOLMAKING TECHNIQUES

Nos.	Pages	
C 1- 9	36- 37	: January
C 10- 16	83- 84	: February
C 17- 28	133-134	: March
C 29- 38	184-185	: April
C 39- 50	230-231	: May
C 51- 57	278-279	: June
C 58- 70	321-323	: July
C 71- 76	369-370	: August
C 77- 86	419-421	: September
C 87- 93	463-464	: October
C 94- 96	509	: November
C 97-107	558-559	: December

MACHINING OF METALS

Nos.	Pages	
D 1- 3	37	: January
D 4- 6	84	: February
D 7- 9	134-135	: March
D 10- 12	185	: April
D 13- 15	232	: May
D 16- 20	279	: June
D 21- 22	323	: July
D 23- 26	370	: August
D 27- 28	421	: September
D 29- 30	464	: October
D 31	509	: November
D 32- 34	559	: December

TRUING AND DRESSING

Nos.	Pages	
E 1- 4	37- 38	: January
E 5- 13	84- 85	: February
E 14- 23	135-137	: March
E 24- 31	186-187	: April
E 32- 41	233-234	: May
E 42- 52	280-281	: June
E 53- 61	323-324	: July
E 62- 66	371	: August
E 67- 69	421	: September
E 70- 71	465	: October
E 72- 79	510-511	: November
E 80- 87	560-561	: December

GRINDING

Nos.	Pages	
F 1- 26	38- 40	: January
F 27- 56	86- 89	: February
F 57- 89	137-139	: March
F 90-119	187-190	: April
F 120-150	234-236	: May
F 151-173	281-284	: June
F 174-219	324-329	: July
F 220-269	371-376	: August
F 270-288	422-424	: September
F 289-308	465-468	: October
F 309-332	511-514	: November
F 333-361	561-563	: December

LAPPING, HONING AND POLISHING

Nos.	Pages	
G 1- 17	40- 42	: January
G 18- 26	89- 91	: February
G 27- 38	140-141	: March
G 39- 48	190-191	: April
G 49- 62	236-237	: May
G 63- 70	284-285	: June
G 71- 88	329-331	: July
G 89-101	376-377	: August
G 102-108	424-425	: September
G 109-117	468	: October
G 118-120	514-515	: November
G 121-123	564	: December

ELECTROLYTIC GRINDING

Nos.	Pages	
H 1- 3	42- 43	: January
H 4- 12	91	: February
H 13- 14	141	: March
H 15- 17	191-192	: April
H 18- 21	237-238	: May
H 22- 23	285	: June
H 24- 27	331-332	: July
H 28- 30	377	: August
H 31- 32	425	: September
H 33- 34	469	: October
H 35	515	: November
H 36	565	: December

PRODUCTION, GRADING AND RECOVERY OF ABRASIVE PARTICLES

Nos.	Pages	
J 1- 2	43	: January
J 3- 4	92	: February
J 5- 6	142	: March
J 7- 8	192	: April
J 9- 11	238	: May
J 12- 13	286	: June
J 14	332	: July
J 15- 16	377	: August
J 17	425	: September
J 18	469	: October
J 19- 20	515	: November
J 21	565	: December

WIRE DRAWING

Nos.	Pages	
K 1	43	: January
K 2- 4	92	: February
K 5	142	: March
K 6	238	: May
K 7- 8	286	: June
K 9	332	: July
K 10	378	: August
K 11- 12	425	: September
K 13- 15	469	: October
K 16	515	: November
K 17- 18	565	: December

ROCK DRILLING

Nos.	Pages	
L 1- 15	43- 45	: January
L 16- 24	92- 93	: February
L 25- 29	142-143	: March
L 30- 33	192-193	: April
L 34- 35	238	: May
L 36- 43	286-287	: June
L 44- 50	332-333	: July
L 51- 60	378-379	: August
L 61- 62	425-426	: September
L 63- 68	469-471	: October
L 69- 76	515-517	: November
L 77- 85	565-566	: December

MACHINING OF STONE, GLASS, *Etc*

Nos.	Pages	
M 1- 13	45- 47	: January
M 14- 40	93- 95	: February
M 41- 58	143-145	: March
M 59- 76	193-195	: April
M 77- 97	239-241	: May
M 98-108	287-289	: June
M109-118	334	: July
M119-134	380-381	: August
M135-149	426-429	: September
M150-164	471-473	: October
M165-180	517-519	: November
M181-193	566-567	: December

HARDNESS, WEAR TESTING AND PRECISION GAUGING

Nos.	Pages	
N 1- 7	47- 48	: January
N 8- 14	95- 96	: February
N 15- 23	146	: March
N 24- 29	196	: April
N 30- 42	241-242	: May
N 43- 52	289-290	: June
N 53- 58	334-335	: July
N 59- 61	381-382	: August
N 62	429	: September
N 63- 64	473	: October
N 65	519	: November
N 66- 67	567	: December

DIAMONDS IN INSTRUMENTS

Nos.	Pages	
P 1	48	: January
P 2- 3	96	: February
P 4	147	: March
P 5- 6	196	: April
P 7- 10	290	: June
P 11- 13	335	: July
P 14- 15	382	: August
P 16- 21	429-430	: September
P 22- 25	473	: October
P 26- 29	519-520	: November
P 30	567	: December

GEM WORKING

Nos.	Pages	
Q 1- 3	48	: January
Q 4- 5	96- 97	: February
Q 6- 10	147	: March
Q 11	242	: May
Q 12- 14	290-291	: June
Q 15- 17	336	: July
Q 18- 24	382-383	: August
Q 25- 27	430	: September
Q 28- 29	473-474	: October
Q 30- 31	520	: November
Q 32- 34	567	: December

POWDER METALLURGY

Nos.	Pages	
R 1	196	: April
R 2	242	: May
R 3	291	: June
R 4-5	383	: August
R 6	430	: September
R 7	520	: November

MACHINING PROCESSES AND DEVELOPMENTS

Nos.	Pages	
S 1	48	: January
S 2- 4	97	: February
S 5- 6	148	: March
S 7- 9	196-197	: April
S 10- 14	242-243	: May
S 15- 17	291	: June
S 18- 19	336	: July
S 20- 25	383	: August
S 26- 27	430-431	September
S 28- 30	474	: October
S 31	520	: November
S 32- 35	568	: December

MISCELLANEOUS

Nos.	Pages	
T 1- 16	48- 49	: January
T 17- 23	97- 98	: February
T 24- 37	148-149	: March
T 38- 53	197-198	: April
T 54- 61	243-244	: May
T 62- 70	292	: June
T 71- 85	337	: July
T 86-101	384-385	: August
T 102-111	431	: September
T 112-120	474-475	: October
T 121-133	520-521	: November
T 134-139	568	: December

TRADE LITERATURE

Nos.	Pages	
U 1- 3	50	: January
U 4	98	: February
U 5- 7	149	: March
U 8- 9	198	: April
U 10	244	: May
U 11	393	: June
U 12	337	: July
U 13	385	: August
U 14-15	475	: October
U 16	521	: November

BOOK NOTICES

Nos.	Pages	
V 1	50	: January
V 2	98	: February
V 3- 5	149-150	: March
V 6	198	: April
V 7- 8	244-245	: May
V 9- 11	293	: June
V 12- 14	338	: July
V 15- 16	385-386	: August
V 17	431	: September
V 18- 19	475	: October
V 20	521	: November
V 21- 23	569	: December

Printed by KENION PRESS LTD., Slough, Bucks.

Industrial Diamond Review

Index January-December 1968

Subject Index	2
Authors' Index	15
Miscellaneous Articles	16
Name Index	17
Geographical Index	20
Trade Name and Company Index	22

Industrial Diamond Review

VOLUME 28 JANUARY to DECEMBER 1968 Nos. 326 to 337

Key to page numbers

No. 326	January	pp 1- 34	No. 330	May	pp 201-228	No. 334	September	pp 389-417
No. 327	February	pp 53- 81	No. 331	June	pp 247-276	No. 335	October	pp 433-461
No. 328	March	pp 101-131	No. 332	July	pp 295-319	No. 336	November	pp 479-507
No. 329	April	pp 153-182	No. 333	August	pp 341-367	No. 337	December	pp 525-555

SUBJECT INDEX

A

Ability, cutting of diamond dressed grinding wheels, 25

Abrasive
- bonding, 533
- diamond
  - metal-clad, 6
  - shipbuilding tools, 351, 352
- electro-bonded, 537
- layer effect on grinding wheel, 68, 69, 71
- scale in granite influencing diamond blade evaluation, 268, 269, 270,
- wheels, profile trueing, 356, 357, 358, 359

Abrasiveness of flint, 120

Accuracy of diamond profiling rollers, 25

Achievements in diamond honing, 220

Action, cutting in diamond, 104

Additives in coolant
- effect
  - cutting speed of diamond circular saw, 113
  - efficiency of diamond frame saw, 114, 115
- research, 111, 112, 113, 114, 115
- rock drilling, 111
- stone sawing, 111, 113

Advantages of diamond shipbuilding tools, 350, 351

Alignment in quartz crystals, importance, 203, 205

Alloy, steel grinding temperatures, 539, 540, 541, 542, 543

Aluminium
- forged missile components, diamond finishing of bores, 54, 55
- lens mounting tubes, diamond turning, 529
- oxide wheel for grinding steel, 539, 540, 541, 542, 543

Anchorage for TV tower, diamond drilling, 544, 545

Angles of diamond tools, measuring instrument, 353, 354, 355

Anti-frictional properties of diamond, 212

Appliances, household, diamond machining, 434, 435, 436, 437

Application
- diamond
  - electroplated surfaces, 212
  - honing, 218
  - motor manufacturing, 171, 172, 173
  - profile dressing rollers, 64
  - tool, 122, 123
    - precision grinding, symposium, 258
    - shipbuilding, range of, 351, 352
- limits of diamond dressing rollers, 26

Area of test of temperature control, 155

Armature
- electric motor, diamond turning, 122, 123
- wire feeding needles, 437

Atlas of models of crystal surfaces, 131

Automobile industry, diamond profile dressing rollers, 61, 62, 63, 64, 65, 66

Automatic
- grinding diamond gramophone styli, grinding cycle, 177
- lapping of press tools, 216, 217
- machine
  - grinding diamond gramophone styli, 175
  - vertical lapping, 216, 217
- manufacture of lead pencils with diamond tools, 412, 413
- production of diamond gramophone styli, 174, 175, 176, 177, 178

Automation speeding cutting of cultured emeralds, 248, 249, 250, 251

Axles, grinding of stub, 66

B

Bakelite components, diamond boring, 435, 437

Bar hole jewel bearings, 206, 207, 210
- cupping, 209
- polishing, 209

Basebed of Portland stone, 297

Bearings
- jewel
  - cup, 206
  - diamond
    - drilling, 206, 207, 208, 209, 210
    - polishing, 206, 207, 208, 209, 210
    - shaping, 206, 207, 208, 209, 210
  - hole
    - bar, 206, 207, 210
      - cupping, 209
      - polishing, 209
    - olive, 206, 210
  - inspection, 210
  - mass production, 206, 207, 208, 209, 210
  - Vee, 207, 210
- surfaces, diamond electroplating, 215

Bench drill, miniature, 130

Bifocal corneal lenses, 305

Bits, synthetic diamond drilling of wells, 317

Blade
- diamond
  - evaluation of influence of granite abrasive scale, 268, 269, 270
  - diamond segments, 163
  - frame saw, 365
    - coolant, 366
    - setting up, 366
    - tensioning, 365, 366
    - wear, 367
  - positioning, 164
  - saw for tile, 546
  - standardization, 166
  - steel body, 163
  - wear, 268
- saw
  - gang for sawing stone, 111
  - setting up, 316
  - tensioning, 316

Bladed, diamond frame saw for cutting stone, 160, 161, 162, 163, 164, 165, 166

Blocks
- building
  - hollow, 56
    - manufacturing with diamond tooled machine, 57
  - interlocking pins, 56
- stone
  - frame sawing
    - fixing, 366
    - size, 366
  - horizontality, 164
  - parallelism, 164
  - positioning, 163, 164
  - regularity, 164
  - shape, 164
  - verticality, 164

Blunting, diamond, 503

Bodies, zoom lens, diamond turning, 5

Body
- steel of diamond blades, 163
- zoom lens, copy turning, 3

Bond materials for diamond honing tools, 171

Bonded
- diamond wheel
  - formed
    - epoxy, 483
    - resin, 481, 483
  - metal for grinding
    - discharge-assisted, 535
    - electrolytic, 535
      - tungsten carbide inserts, 116, 117, 118, 119
  - resin, metal clad, 12
  - resinoid
    - evaluation, 394, 395, 396, 397, 398, 399, 400
    - performance, 394, 395, 396, 397, 398, 399, 400
- electro-, abrasives, 537

Bonding
- abrasive, 533
- diamond, 495, 496, 497
  - ceramic, 495
  - chemical, 495
    - significance, 497
  - electroforming, 533, 534, 535, 536, 537, 538
    - mould, 537
  - electroplating, 533, 534, 535, 536 537, 538

fusion, 157, 159
tenacity, 157
gramophone styli, 495, 497
history, 535
metals, 495
occlusion plating, 536
physico-chemical, 497
quartz, 495
Booklet on quartz cutting, 228
Borazon, 211
Borer, diamond precision, 411
Bores
diamond finishing of forged aluminium missile components, 54, 55
needles, diamond lapping, 437
titanium carbide, lapping with diamond charged steel wire, 259
Boring, diamond
bakelite components, 435, 437
single-point tool, 3
zoom lens components, 3
Box shafts, gear, grinding, 64
Brass, diamond laps, 480, 481
Bricks
decorative, economy of facing by diamond sawing, 120, 121
diamond sawing, effect of water coolant, 121
facing, calcium silicate, 120
flint, diamond sawing, 120
Bridge guard rails, diamond core drilling, 78, 79, 80
Building
blocks
hollow, 56
manufacturing with diamond tooled machine, 57
interlocking pins, 56
foundations, testing reinforcement, 167,
industry, diamond tools, 56, 57, 58, 59, 60
material, Portland stone, 297
Burnishing, diamond
improving surface finishes, 552, 553, 554, 555
machines, 553
materials, 553, 555
process, 552
tools, 552

C
Calcite, 458
inclusions in diamond, 460
Calcium silicate facing bricks, 120
Camera
Japanese industry using diamond tools, 526, 527, 528, 529
mirrors, 155
Carbide
dies, diamond grinding, 345, 346, 347
drills, twist, 342
face mill, electrolytic diamond grinding, 27, 28, 29, 30, 31, 32, 33
gauges
plug, 343
slip, 342
grade, influence on wear of grinding wheel, 71
green, diamond shaping, 122
silicon wheels for grinding sintered carbide tools, 252, 253, 254, 255
sintered
diamond finishing, 122, 123
grinding
tools with wheels
diamond, 252, 253, 254, 255
silicon carbide, 252, 253, 254, 255
workpieces, 65
steel combination, diamond grinding 6
titanium
bore lapping with diamond charged steel wire, 259
diamond machining, 259
tools, lathe electrolytic diamond grinding, 27, 28, 29, 30, 31, 32, 33
tungsten
grinding
electrolytic, investigations, 182
plunge, research, 68, 69, 70, 71, 72, 73, 74
inserts, diamond grinding
electrolytic with metal bonded wheel, 116, 117, 118, 119
plunge, 116, 117, 118, 119
throw-away tips grinding on electrolytic grinder with metal bonded diamond wheel, 446, 447, 448, 449
tools
diamond machining, 342, 343, 344, 345, 346, 347
quality control, 345
press
finish grinding, 483
forming with diamond wheels, 480, 481, 482, 483
spark-erosion machining, 483
Castle, granite foundations, diamond drilling, 401
Catalogue, diamond dresser, 267
Cavity, wall method, 56
Centre, industrial diamonds training, 266
Ceramic
bonding of diamond, 495
fuse grinding
cost, 450, 451, 452, 453
diamond, 450, 451, 452, 453
Characteristics
diamond
grit in diamond saw, 315
honing, 168
machining vitreous silica, 390
Chemical
diamond
bonding, 495
significance, 497
inertness, 104
viewpoint, 503
metal, 438, 439, 440, 441, 442
China, Red, synthetic diamonds, 551
Chrome spinels, inclusions in diamond, 407
Circular
diamond saw
depth of cut, 314
effect of coolant additive on cutting speed, 113
diameter, 313
segments, 313
rotational
feed, 314
speed, 314
saw blade sawing stone, 111
sawing stone, 313
diamond, 313
Clad, metal-, diamond patents, 81
Cladding, metal- of, diamond, 8
Classification of rocks, 310
Cleaner, vacuum
collecting diamond dust, 437
diamond machining, 434, 435, 436, 437
Cleaning trays, vitreous silica, semiconductor, 391
Coated diamond, 198
Coating
detonation, 490
diamond, 159
finishing
wear resistant, 490, 491, 492, 493, 494
hard, 490, 491, 492, 493, 494
hard, diamond
grinding, 491, 493, 494
lapping, 494
plasma, 490
surface tester, 181
Coesites, inclusions in diamond, 405
Collection of diamond dust with vacuum cleaner, 437
Combination of steel and carbide, diamond grinding, 6
Commutators, diamond turning, 435
Compacting of metal powders, 131
continuous, 131
explosive, 131
isostatic, 131
magnetic, 131
vibratory, 276
Comparison
diamond honing costs, 216, 218
plunge grinding with other grinding methods, 72, 73, 74
Components
bakelite, diamond boring, 435, 437
forged aluminium missile, diamond finishing of bores, 54, 55
ventilator of glass reinforced plastics, diamond
shaping, 260, 261, 262, 263
trimming, 260, 261, 262, 263
zoom lens, diamond
boring, 3
machining, 2, 3, 4, 5,
Composite diamond wheel, 453
Composition of natural stone, 310
Compound, diamond in
Kemet laps
copper for sharpening microtome knives, 441, 442
preparing metallurgical specimens, 441
lapping plates for polishing soft materials, 438, 439, 440, 441, 442
silicon semiconductor slices
lapping, 256, 257
polishing, 256, 257
tools
lapping, 264, 265
making, 264, 265
Concentration of diamond
effects
dry cutter grinding, 399, 400
wet surface grinding, 394, 395, 396
grit
diamond saw, 315
honing, 170
Concrete
saw, 271
sawing floor of cowsheds, 180
Conditions of diamond
dressing, 15
electrolytic grinding, 29
Conference (*see also* Seminar)
diamond in the stone industry, 111, 112, 113, 114, 115, 455
tools, 67
solid state physics, 507
Consolidation of metal powders, 131
Consumption of diamond in diamond honing, 171
Contact
lenses
diamond machining, 304, 305, 306, 307
tolerances, 307
pressure
diamond honing, 171

electrolytic grinding, 30
Content of diamond in standard diamond wheels, 362
grinding, laboratory evaluation, 211
Continuous
compaction of metal powders, 131
rim in diamond wheel, 202
Control
quality in diamond machining of tungsten carbide tools, 345
temperature of test area, 155
Controllers of frequency in quartz crystals, 202
Conversion of hotels by noiseless diamond drilling, 532
Coolant
additive
effect
cutting speed diamond circular saw, 113
efficiency of diamond frame saw, 114, 115
research, 111, 112, 113, 114, 115
rock drilling, 111
stone sawing, 111, 113
cutting stone, 164
diamond frame saw blades, 366
recirculating system, 113
water effect on diamond sawing of bricks, 121
Coping stones, manufacture of Portland, 300
Copper Kemet laps with diamond compound for sharpening microtome knives, 441, 442
Copy turning of zoom lens body, 3
Core, diamond
drills for installation of lifts, 228
drilling
bridge guard rails, 78, 79, 80
vitreous silica, 391
Coring, test
diamond, 167
missile heat shield, 308
Corneal lenses
bifocal, 307
spherically-curved, 305
Costs
comparison in diamond honing, 218
diamond dressing rollers, 26
grinding
ceramic fuse, 450, 451, 452, 453
reducing, 317
low of diamond form grinding, 411
production in diamond sawing of stone, 165, 166
Cowsheds, diamond grinding of concrete floor, 180
Crankshaft grinding, 64
Crowns, diamond drilling performance, 111
Crushing, profile dressing, 23
Crystal
diamond, 104, 105, 106, 107, 108, 109, 110
defects, 104, 105, 106, 107, 108, 109, 110
impurities, 104, 105, 106, 107, 108, 109, 110
dislocations, 319
examination of diamond grinding wheel replica preparation, 75
optical, polishing jig, 181
quartz
diamond machining, 202, 203, 204, 205
final operations, 205
electronics industry, 202, 203, 204, 205
frequency controllers, 202
importance of alignment, 203, 205
piezoelectric properties, 202
structure in natural diamond, 104, 105
surfaces model atlas, 131
Cultured emeralds
cutting
punch tape programming, 251
speeding
automation, 248, 249, 250, 251
diamonds, 248, 249, 250, 251
faceting, 249
shaping, 249
Cup
diamond wheel wear in plunge grinding, 68, 69, 70, 71, 72, 73, 74
jewel bearings, 206
Cupping bar hole jewel bearings, 209
Curve generating of lenses with diamond, 156
Cut, depth of with diamond circular saw, 314
Cutter
diamond head, 413
dry grinding, 396, 397, 398, 399, 400
effect
diamond concentration, 399, 400
rim width, 397, 398
table traverse, 397
wheel speed, 397
test machine, 396
Cutting
ability of diamond dressed grinding wheels, 25
action of diamond, 104
cultured emeralds
punch tape programming, 251
speeding
automation, 248, 249, 250, 251
diamonds, 248, 249, 250, 251
quartz, booklet, 228
speed
diamond honing, 171
effect of coolant additives on diamond circular saw, 113
stone
coolant, 164
diamond
bladed frame saw, 160. 161, 162, 163, 164, 165, 166
machines, 161, 163
operating parameters, 163
theory 160
mechanism, 311
technique, 164
tensile stress, 164
Cycle of automatic grinding of diamond gramophone styli, 177

D

Decorative facing bricks, economy of diamond sawing, 120, 121
Defects in diamond
crystal, 104, 105, 106, 107, 108, 109, 110
natural, 104, 105
Defining size of diamond powder, 484, 485, 486, 487, 488, 489
Depth of cut of diamond circular saw, 314
Detonation coating, 490
Development of diamond production grinding, Seminar, 414, 415, 416
Diameter of diamond saw, 313
circular, 313
Diamond
abrasive, metal-clad, 6
bladed frame saw cutting stone, 160, 161, 162, 163, 164, 165, 166
blades
diamond segments, 163
evaluation of influence of granite
abrasive scale, 268, 269, 270
positioning, 164
standardization, 166
steel body, 163
tile saw, 546
wear, 268
blunting, 503
bonding, 495, 496, 497
ceramic, 495
chemical, 495
significance, 497
electroforming, 533, 534, 535, 536, 537, 538
mould 537
electroplating, 533, 534, 535, 536, 537, 538
fusion, 157, 159
tenacity, 157
gramophone styli, 495, 497
history, 535
metals, 495
occlusion plating, 536
physical-chemical, 497
quartz, 495
boring
bakelite components, 435, 437
zoom lens components, 3
burnishing
improving surface finishes, 552, 553, 554, 555
machines, 553
materials, 553, 555
process, 552
tools, 552
charged steel wire for lapping titanium carbide bore, 259
chemical
inertness, 104
viewpoint, 503
coated, 108
coating, 159
compound
Kemet laps
copper for sharpening microtome knives, 441, 442
preparing metallurgical specimen, 441
lapping
plates for polishing soft materials, 438, 439, 440, 441, 442
tools, 264, 265
silicon semiconductor slices
lapping, 256, 257
polishing, 256, 257
tool making, 264, 265
concentration effects
dry cutter grinding, 399, 400
wet surface grinding, 394, 395, 396
consumption in diamond honing, 171
content in standard diamond wheels, 362
grinding, laboratory evaluation, 211
core
drilling for installation of lift, 228
drilling vitreous silica, 391
coring test, 167
crystal, 104, 105, 106, 107, 108, 109, 110
defects, 104, 105, 106, 107, 108, 109, 110
impurities, 104, 105, 106, 107, 108, 109, 110
curve generating lenses, 156
cutting
action, 104
stone
machines, 161, 163
operating parameters, 163
theory, 160
diamond inclusions, 405
dies

laser drilling, 500
ultrasonic polisher, 318
diodes mounted on, 301
dressed grinding wheels cutting ability, 25
dresser catalogue, 267
dressing
conditions, 15
grinding wheels, 14, 15, 16, 17, 18, 19
internal, 271
methods, 14
rollers, 19, 500
application limits, 26
costs, 26
electrodeposited, 22, 23, 24, 25, 26
life, 26
method of use, 26
profile
application, 64
automobile industry, 61.62, 63, 64, 65, 66
mass production, 61, 62, 63, 64, 65, 66
process, 61, 63
tool
holders, 15
mounts, 15
straight, 15, 16
drill
exploration, 130
factory, 348, 349
lightweight swivel head, 546
rod, wire line standardization, 507
drilling
core of bridge guard rails, 78, 79, 80
crowns, performance, 111
granite castle foundations, 401
jewel bearings, 206, 207, 208, 209, 210
noiseless conversion of hotels, 532
rock, 182
TV-towers, anchorage, 544, 545
dust collection by vacuum cleaner, 437
edging lenses, 156
efficiency, 503
electroplating of bearing surfaces, 215
files, 130
finishing
bores of forged aluminium missile components, 54, 55
coatings
hard, 490, 491, 492, 493, 494
wear, 490, 491, 492, 493, 494
lens unit bore, 3
Portland stone, 296, 297, 298, 299, 300
sintered carbide, 122, 123
frame saw
blades, 365
coolant, 366
setting up, 366
tensioning, 365, 366
wear, 367
segments, 365
gem, Russian, 267
gramophone styli, automatic
grinding
grinding cycle, 177
machine, 175
production, 174, 175, 176, 177, 178
grinding
carbide dies, 345, 346, 347
ceramic fuse, 450, 451, 452, 453
edge of lens, 529
electrolytic
carbide
face mills, 27, 28, 29, 30, 31, 32, 33
lathe tools, 27, 28, 29, 30, 31, 32, 33
conditions, 29
machines, 29
form, low cost, 411
hard coatings, 491, 493, 494
optical, 155
glass, 102, 103
plunge of tungsten carbide inserts, 116, 117, 118, 119
production developments seminar, 414, 415, 416
ruby laser rods, 390, 393
steel, 6, 7, 8, 9, 10, 11, 12, 13
combination with carbide, 6
economic, 6, 7, 8, 9, 10, 11, 12, 13
surface speed, 9
wheel, 318
electrolytic grinding, 29
hub material, 7
replica examination
preparation
crystal, 75
particles, 75, 77
technique, 75, 76, 77
history, film, 267
grit
diamond saw
characteristics, 315
concentration, 315
size, 315
strength, 315
dressing, 17
selection, 106, 107, 108
seminar, 224, 225, 226, 227
hardness, 104
head cutter, 413
heat sinks, semiconductor, 301
honing
achievements, 220
applications, 218
motor manufacturing, 171, 172, 173
characteristics, 168
contact pressure, 171
costs comparison, 216
cutting speed, 171
diamond consumption, 171
economy, 219, 220
grit
concentration, 170
size, 170
trends, 220
workpiece surface finish, 170
inclusions, 108
calcite, 460
chrome spinels, 407
coesites, 405
diamond, 405
diopsides, 407
enstatites, 405
garnets, 406
graphite, 459, 460
haematite, 460
identifying by x-ray diffraction technique, 402, 403
ilmenite, 407
kaolinite, 460
magnetite, 407, 460
mineral
epigenetic, 403, 458, 459, 460, 461
sulphide, 460
syngenetic, 402, 403, 404, 405, 406, 407, 408, 409, 410
olivine, 405
pentlandite, 460
quartz, 459
recognition, 402, 403, 404, 405, 406, 407, 408, 409, 410
rutiles, 406
sellaite, 460
syngenetic
gas, 408
liquid, 408
polycrystalline, 407
xenotime, 460
industrial
Japanese industry, 531
material, 104, 105, 106, 107, 108, 109, 110
seminar, 531
training centre, 266
industry
Italian optical, 102, 103
stone, conference, 111, 112, 113, 114, 115, 455
lapping
bores in needles, 437
hard coatings, 494
ruby laser rod, 390, 393
laps, brass, 480, 481
lathe, 318
machining
contact lenses, 304, 305, 306, 307
household appliances, 434, 435, 436, 437
Portland stone, 296, 297, 298, 299, 300
prisms, 529
quartz crystals, 202, 203, 204, 205
final operations, 205
seminars, 179, 302, 303
titanium carbide, 259
tungsten carbide tools, 342, 343, 344, 345, 346, 347
quality control, 345
vitreous silica, 390, 391, 392, 393
ultrasonic, 391
vacuum cleaners, 434, 435, 436, 437
zoom lens
components, 2, 3, 4, 5
units, machining problems, 5
metal
-clad
patents, 81
resin-bonded wheel, 12
cladding, 8
milling ultra-precision threads, 5
natural
defects, 104, 105
faces
etching, 498, 499
discussion, 499
experimental method, 498
observations, 498, 499
results, 498, 499
octahedral trigons, 272, 273, 274, 275
structure, crystal, 104, 105
plated drilling mandrel, 259
points for stipple engraving of glass, 222, 223
polishing
glass with Kemet lap, 441
jewel bearings, 206, 207, 208, 209, 210
ruby laser rod, 390, 393
scaife surface texture, 443, 444, 445
powder
micron measurement, 487, 488
microscopic examination, 484, 485
sieved, 485
precision industry, seminar, 547, 548, 549, 550
sieving, 485
micron, 487
size
defining, 484, 485, 486, 487, 488, 489
measuring, 484, 485, 486, 487, 488, 489

precision borer, 411
properties, anti-frictional, 212
purity, 105
revolutionizing optics, 154, 155, 156
rollers, profiling
  accuracy, 25
  surface finish, 25
saw, 401
  circular
    depth of cut, 314
    diameter, 313
    effect of coolant additive on cutting speed, 113
    rotational
      feed, 314
      speed, 314
    segments, 313
  concrete, 271
  diameter, 313
  diamond grit
    characteristics, 315
    concentration, 315
    size, 315
    strength, 315
  frame, effect of coolant additive on efficiency, 114, 115
  life, 113
  rotational speed, 314
  segments, 313
sawing
  bricks
    decorative facing, economy, 120, 121
    effect of water coolant, 121
    flint, 120
  concrete floor in cowsheds, 180
  frame, 316
  stone
    circular, 313
    feeding system, 315
    machine requirements, 314
    method, 315
    Portland, 296, 297, 298, 299, 300
    production cost, 165, 166
segments
  diamond blades, 163
  working, 163
semiconducting, 106
shaping
  glass-reinforced plastic ventilator components, 260, 261, 262, 263
  'green' carbide, 122
  heat shield of missile, 308, 309
  jewel bearings, 206, 207, 208, 209, 210
speeding cutting of cultured emeralds, 248, 249, 250, 251
stone industry conference, 111, 112, 113, 114, 115, 455
structure, 104
surfaces, electro-plated
  applications, 212
  friction investigation, 212, 213, 214, 215
synthetic
  drilling bits for wells, 317
  exhibition, 81
  octahedral faces growth spirals, 127, 128, 129
  rapid hardness testing, 126
  Red China, 551
  wheel for grinding steel, 539, 540, 541, 542, 543
tipped
  hardness tester, 457
  probe, 457
tool
  angles measuring instrument, 353, 354, 355
  applications, 122, 123
    precision grinding symposium, 258
automatic manufacture of lead pencils, 412, 413
dressing
  impregnated, 317
  point
    multi-, 16
      profile, 17
    single-, 15
      profile, 17
drilling, 122, 123
exhibition, 81
  unit, 364
filing, 122, 123
grinding, 122, 123
honing, 122, 123
  bond materials, 171
  mass production, 168, 169, 170, 171, 172, 173, 218, 219, 220, 221
industry
  building, 56, 57, 58, 59, 60
  Japanese camera, 526, 527, 528, 529
  precision seminar, 547, 548, 549, 550
  stone conference, 67
machining stone, 310, 311, 312, 313, 314, 315, 316, 365, 366, 367
manufacture, 157, 158, 159
rotary pantograph controlled, 356, 357, 358, 359, 360, 361
seminar, 20, 21
shipbuilding, 350, 351, 352
  abrasive, 351, 352
  advantages, 350, 351
  range of applications, 351, 352
single-point
  boring, 3
  producing optically perfect Perspex prisms, 102, 103
slicing, 122, 123
tooled machine manufacturing hollow building blocks, 57
trimming glass-reinforced plastic ventilator components, 260, 261, 262, 263
tumbling, 177
turning
  aluminium lens mounting tubes, 529
  commutators, 435
  electric motor armatures, 124, 125
  metals, 156
  zoom lens bodies, 5
types, 104
vibrating reducing inspection time, 456, 457
wetting, 157, 159
wheels, 411
  bonded
    metal, grinding
      discharge-assisted, 535
      electrolytic, 535
        tungsten carbide
          inserts, 116, 117, 118, 119
          throw-away tips, 446, 447, 448, 449
    resinoid
      evaluation, 394, 395, 396, 397, 398, 399, 400
      performance, 394, 395, 396, 397, 398, 399, 400
  composite, 453
  continuous rim, 202
  cup, wear in plunge grinding, 68, 69, 70, 71, 72, 73, 74
  dual purpose, 346
  electrolytic grinding, 182
  formed by bonded
    epoxy-, 483
    resin, 481, 483
  forming tungsten carbide press tools, 480, 481, 482, 483
  grinding
    sintered carbide tools, 252, 253, 254, 255
    standard diamond content, laboratory evaluation, 211
  importance of grinding fluids, 501, 502, 503, 504, 505, 506
  report, 228
  standard diamond content, 362
  technology, 480, 481, 482, 483
Dies
  carbide, diamond grinding, 345, 346, 347
  diamond
    laser drilling, 500
    ultrasonic polisher, 318
  making, 263
Diffraction x-ray technique identifying diamond inclusions, 402, 403
Diffusion jigs of vitreous silica, 391
Diodes mounted on diamond, 301
Diopsides inclusions in diamond, 407
Discharged-assisted grinding with metal-bonded diamond wheels, 535
Discussion on etching natural diamond faces, 499
Dislocations, crystal, 319
Dressed grinding wheels with diamond, cutting ability, 25
Dresser, diamond catalogue, 267
Dressing
  diamond
    conditions, 15
    grinding wheels, 14, 15, 16, 17, 18, 19
      internal, 271
    grit, 17
    methods, 14
    rollers, 19, 500
      application limits, 26
      costs, 26
      electro-plated, 22, 23, 24. 25, 26
      life, 26
      method of use, 26
      profile
        application, 64
        automobile industry, 61, 62, 63, 64, 65, 66
        mass production, 61, 62, 63, 64, 65, 66
        process, 61, 63
    tool
      holders, 15
      impregnated, 317
      mounts, 15
      multi-point, 16
        profile, 17
      single-point, 15
        profile, 17
      straight, 15, 16
  profile
    crushing, 23
    grinding wheels, 22, 23, 24, 25, 26
    history, 22
    methods, 22
Drill
  bench, miniature, 130
  diamond
    core for installation of lifts, 228
    exploration, 130
    factory, 348, 349
    lightweight swivelhead, 546
    wire line rod standardization, 507
  twist, carbide, 342
Drilling
  bits, synthetic diamond, for wells, 317
  diamond
    core

bridge guard rails, 78, 79, 80
vitreous silica, 391
crowns, performance, 111
granite castle foundations, 401
jewel bearings, 206, 207, 208, 209
noiseless conversion of hotels, 532
plated mandrel, 259
rock, 182
TV-tower, anchorage, 544, 545
tool, 122, 123
laser, of diamond dies, 500
rock, 182
coolant additives, 111
Dry cutter grinding, 396, 397, 398, 399, 400
effect
diamond concentration, 399, 400
rim width, 397, 398
table traverse, 397
wheel speed, 397
test machine, 396
Dual purpose diamond wheel, 346
Dust, diamond collection with vacuum cleaner, 437

E

Economic diamond grinding of steel, 6, 7, 8, 9, 10, 11, 12, 13
Economy of diamond
honing, 219, 220
sawing decorative facing brick, 120, 121
Edge diamond grinding of lens, 529
Edging lenses, diamond, 156
Effect
abrasive layer grinding wheel, 68, 69, 71
coolant additive on diamond saw
cutting speed of circular, 113
efficiency of frame, 114, 115
dry cutter grinding
diamond concentration, 399, 400
rim width, 397, 398
table traverse, 397
wheel speed, 397
parameters on grinding of steel, 543
water coolant when diamond sawing bricks, 121
wet surface grinding
diamond concentration, 394, 395, 396
operating variables, 394
volumetric feed rate, 394
Efficiency of diamond, 503
frame saw, effect of coolant additive, 114, 115
Electric
furnace construction, vitreous silica, 391
motor armatures, diamond turning, 124, 125
Electro-bonded abrasives, 537
Electro-deposited diamond dressing rollers, 22, 23, 24, 25, 26
Electroforming, diamond bonding, 533, 534, 535, 536, 537, 538
mould, 537
Electrolyte in electrolytic grinding, 30
Electrolytic
grinders, 34
metal bonded diamond wheel grinding tungsten carbide throw-away tips, 446, 447, 448, 449
grinding
contact pressure, 30
diamond
carbide
face mills, 27, 28, 29, 30, 31, 32, 33
lathe tools, 27, 28, 29, 30, 31, 32, 33
conditions, 29
wheel, 182
grinding, 29
metal-bonded, 535
tungsten carbide inserts, 116, 117, 118, 119
machines, 29
electrolyte, 30
tungsten carbide, investigations, 182
Electron probe microanalysis, 551
Electronic industry, quartz crystals, 202, 203, 204, 205
Electro-plated diamond surfaces
applications, 212
friction investigation, 212, 213, 214, 215
Electroplating diamond
bearing surfaces, 215
bonding, 533, 534, 535, 536, 537, 538
Elliptical styli, 178
Emeralds, cultured
cutting
punch tape programming, 251
speeding
automation, 248, 249, 250, 251
diamonds, 248, 249, 250, 251
faceting, 249
shaping, 249
End plates, 163
Engraving glass with diamond points, stipple, 222, 223
Enstatites inclusions in diamond, 405
Epigenetic mineral inclusions in diamonds, 403, 458, 459, 460, 461
Epoxy-bonded formed diamond wheel, 483
Etching natural diamond faces, 498, 499
discussion, 499
experimental method, 498
observations, 498, 499
results, 498, 499
Evaluation
diamond
blade influenced by granite abrasive scale, 268, 269, 270
resinoid bonded wheel, 394, 395, 396, 397, 398, 399, 400
laboratory of diamond standard content of diamond grinding wheels, 211
Examination
diamond grinding wheel by replica
preparation
crystal, 75
particles, 75, 77
technique, 75, 76, 77
microscopic of diamond powder, 484, 485
sieved, 485
Exhibition of diamond
synthetic, 81
tools, 81
unit, 364
Experimental method of etching natural diamond faces, 498
Exploration
diamond drill, 130
space optics, 154
Explosive compaction of metal powders, 131
Extraction, Portland stone, 297, 299
Extrusion, metal powders, 131
Eyepiece image splitting, microscope, 487

F

Face mill, electrolytic diamond grinding of carbide, 27, 28, 29, 30, 31, 32, 33
Faceplates, 155
Faces, diamond
natural, etching, 498, 499
discussion, 499
experimental method, 498
observations, 498, 499
results, 498, 499
octahedral
synthetic, growth spirals, 127, 128 129
trigons on natural, 272, 273, 274 275
Faceting cultured emeralds, 249
Facing bricks
calcium silicate, 120
decorative diamond sawing, economy, 120, 121
Factory, diamond drill, 348, 349
Feed, rotation of diamond circular saw, 314
Feeding
needles for armature wire, 437
system for diamond sawing of stone, 315
Files, diamond, 130
Filing tool, diamond, 122, 123
Film on the history of diamond grinding wheels, 267
Final operations in diamond machining of quartz crystals, 205
Finish
grinding of tungsten carbide press tools, 483
machining of missile heat shield, 308
surface
diamond profiling rollers, 25
improving by diamond burnishing, 552, 553, 554, 555
workpiece by diamond honing, 170
Finishing, diamond
bores of forged aluminium missile components, 54, 55
coatings
hard, 490, 491, 492, 493, 494
wear-resistant, 490, 491, 492, 493, 494
lens unit bore, 3
Portland stone, 296, 297, 298, 299, 300
sintered carbide, 122, 123
Fixing stone block for frame sawing, 366
Flint
abrasiveness, 120
bricks, diamond sawing, 120
hardness, 120
Floor, concrete of cowsheds, diamond sawing, 180
Fluids, grinding
importance for diamond wheels, 501, 502, 503, 504, 505, 506
requirements, 503
Forged aluminium missile components, diamond finishing of bores, 54, 55
Form diamond grinding, low cost, 411
Formed diamond wheel, bonded
epoxy-, 483
resin-, 481, 483
Forming tungsten carbide press tools with diamond wheel, 480, 481, 482, 483
Foundations
building, testing reinforcement, 167
castle, granite, diamond drilling, 401
Frame
saw, diamond
bladed for cutting stone, 160, 161, 162, 163, 164, 165, 166
blades, 365

coolant, 366
setting up, 366
tensioning, 365, 366
wear, 367
effect of coolant additive on efficiency, 114, 115
segments, 365
sawing, 365, 366, 367
diamond, 316
machine, 365
stone block
fixing, 366
size, 366
Frames, gold, spectacle, 264, 265
Frequency, quartz crystal controllers, 202
Friction
diamond electroplated surfaces, 212, 213, 214, 215
meter on runway, 181
Furnace, electric construction vitreous silica, 391
Fuse, ceramic, grinding
cost, 450, 451, 452, 453
diamond, 450, 451, 452, 453
Fusion bonding of diamond, 157, 159
tenacity, 157

G
Gang sawblades sawing stone, 111
Garnet inclusions in diamond, 406
Gas, syngenetic inclusions in diamond, 408
Gauges, carbide
plug, 343
slip, 342
Gear box shafts, grinding, 64
Gem diamonds, Russian, 267
Generating curve lenses, diamond, 156
Glass
diamond
optical grinding, 102, 103
polishing with Kemet laps, 441
optical surface grinding, 103
reinforced plastic ventilator components, diamond
shaping, 260, 261, 262, 263
trimming, 260, 261, 262, 263
stipple engraving with diamond points, 222, 223
Goethite, 458
Gold spectacle frames, 264, 265
Goniometer, reflection, 353, 354, 355
Grade, carbide influencing wear of grinding wheel, 71
Gramophone, diamond styli
automatic
grinding
grinding cycle, 177
machine, 175
production, 174, 175, 176, 177, 178
bonding, 495, 497
Granite
abrasive scale influencing diamond blade evaluation, 268, 269, 270
castle foundations, diamond drilling, 401
Graphite, 458
inclusions in diamond, 459, 460
Green carbide, diamond shaping, 122
Grinder, electrolytic, 34
grinding tungsten carbide throw-away tips with metal-bonded diamond wheel, 446, 447, 448, 449
Grinding
automatic, diamond gramophone styli, grinding cycle, 177
axles, stub, 66
ceramic fuse
cost, 450, 451, 452, 453
diamond, 450, 451, 452, 453
costs, reducing, 317
crankshafts, 64
cutter, dry, 396, 397, 398, 399, 400
effect
diamond concentration, 399, 400
rim width, 397, 398
table traverse, 397
wheel speed, 397
test machine, 396
cycle of automatic grinding of diamond gramophone styli, 177
diamond
carbide dies, 345, 346, 347
form, low cost, 411
hard coatings, 491, 493, 494
lens edge, 529
optical, 155
glass, 102, 103
ruby laser rods, 390, 393
steel, 6, 7, 8, 9, 10, 11, 12, 13
carbide combination, 6
economic, 6, 7, 8, 9, 10, 11, 12, 13
surface speed, 9
wheels, metal-bonded
discharged-assisted, 535
electrolytic, 535
electrolytic
contact pressure, 30
diamond
carbide
face mills, 27, 28, 29, 30, 31, 32, 33
lathe tools, 27, 28, 29, 30, 31, 32, 33
conditions, 29
machines, 29
wheels, 182
grinding, 29
metal-bonded for tungsten carbide inserts, 116, 117, 118, 119
electrolyte, 30
tungsten carbide, investigations, 182
finish of tungsten carbide press tools, 483
fluids
importance, diamond wheels, 501, 502, 503, 504, 505, 506
requirements, 503
gear box shafts, 64
machine, automatic, for diamond gramophone styli, 175
methods, comparison plunge grinding, 72, 73, 74
neat oils, 505
plunge grinding
comparison with other grinding methods,72, 73, 74
diamond of tungsten carbide inserts, 116, 117, 118, 119
tungsten carbide research, 68, 69, 70, 71, 72, 73, 74
wear of diamond cup wheel, 68, 69, 70, 71, 72, 73, 74
precision, diamond tool application, symposium, 258
production
diamond developments, seminar, 414, 415, 416
seminar, 267
profile
hard metals, 360, 361
precision, 356, 357, 358, 359, 360, 361
sintered carbide workpieces, 65
steel
alloy temperatures, 539, 540, 541, 542, 543
effect of parameters, 543
wheel
aluminium oxide, 539, 540, 541, 542, 543
synthetic diamond, 539, 540, 541, 542, 543
stone, 367
surface
optical, 155
glass, 103
wet, 394, 395, 396
effect
diamond concentration, 394, 395, 396
operating variables, 394
volumetric feed rate, 394
tools, diamond, 122, 123
tungsten carbide throw-away tips with metal-bonded diamond wheel on electrolytic grinder, 446, 447, 448, 449
valve, 64
wheel
abrasive layer effect, 68, 69, 71
diamond, 318
dressed, cutting ability, 25
dressing, 14, 15, 16, 17, 18, 19
internal, 271
electrolytic grinding, 29
examination, replica
preparations
crystals, 75
particles, 75, 77
technique, 75, 76, 77
history, film, 267
hub material, 7
sintered carbide tools, 252, 253, 254, 255
standard diamond content laboratory evaluation, 211
dressing profile, 22, 23, 24, 25, 26
sintered carbide tools with silicon carbide wheels, 252, 253, 254, 255
wear, influence of carbide grade, 71
Grit, diamond
diamond saw
characteristics, 315
concentration, 315
size, 315
strength, 315
dressing, 17
honing
concentration, 170
size, 170
selection, 106, 107, 108
seminar, 224, 225, 226, 227
Ground steel specimens, mechanical properties, 13

H
Haematite, 458
inclusions in diamond, 460
Handbook on mineralogy, 276
Hard
coatings, diamond
finishing, 490, 491, 492, 493, 494
grinding, 491, 493, 494
lapping, 494
metals, profile grinding, 360, 361
Hardness
diamond, 104
flint, 120
Kemet laps, 438
tester, 551
diamond tipped, 457
testing, rapid, of synthetic diamonds, 126
Head, diamond cutter, 413
Heat
shield of missile

diamond shaping, 308, 309
finish machining, 308
test coring, 308
sinks, diamond semiconductor, 301
History
diamond bonding, 535
film of diamond grinding wheels, 267
profile dressing, 22
Holders, diamond dressing tool, 15
Hole, jewel bearings
bar, 206, 207, 210
cupping, 209
polishing, 209
olive, 206, 210
Hollow building blocks, 56
manufactured on diamond-tooled machine, 57
Honing
diamond
achievements, 220
applications, 218
motor manufacturing, 171, 172, 173
characteristics, 168
contact pressure, 171
cutting speed, 171
diamond consumption, 171
economy, 219, 220
grit
concentration, 170
size, 170
tool, 122, 123
bond materials, 171
mass production, 168, 169, 170, 171, 172, 173, 218, 219, 220, 221
trends, 220
workpiece surface finish, 170
time, 168, 169, 170
Horizontality of stone blocks, 164
Hotels, noiseless conversion by diamond drilling, 532
Household appliances, diamond machining, 434, 435, 436, 437
Hub material for diamond grinding wheels, 7

I
Identifying diamond inclusions by x-ray diffraction technique, 402, 403
Igneous rocks, 310
Ilmenite inclusions in diamond, 407
Image splitting eyepiece for microscope, 487
Importance
alignment in quartz crystals, 203, 205
grinding fluids for diamond wheels, 501, 502, 503, 504, 505, 506
Impregnated diamond dressing tools, 317
Improving surface finishes by diamond burnishing, 552, 553, 554, 555
Impurities, diamond crystal, 104, 105, 106, 107, 108, 109, 110
Inclusions in diamond, 108
calcite, 460
chrome spinels, 407
coesites, 405
diamond, 405
diopsides, 407
enstatites, 405
garnets, 406
graphite, 459, 460
haematite, 460
identifying by x-ray technique, 402, 403,
ilmenite, 407
kaolinite, 460
magnetites, 407, 460
mineral
epigenetic, 403, 458, 459, 460, 461
sulphide, 460
syngenetic, 402, 403, 404, 405, 406, 407, 408, 409, 410
olivine, 405
pentlandite, 460
quartz, 459
recognition, 402, 403, 404, 405, 406, 407, 408, 409, 410
rutiles, 406
sellaite, 460
syngenetic
gas, 408
liquid, 408
polycrystalline, 407
xenotime, 460
Industrial diamond
Japanese industry, 531
material, 104, 105, 106, 107, 108, 109, 110
seminar, 531
training centre, 266
Industry
automobile, diamond profile dressing rollers, 61, 62, 63, 64, 65, 66
building, diamond tools, 56, 57, 58, 59, 60
Electronics, quartz crystals, 202, 203, 204, 205
Italian optical, diamond, 102, 103
Japanese
camera, diamond tools, 526, 527, 528, 529
industrial diamonds, 531
precision seminar, diamond
powders, 547, 548, 549, 550
tools, 547, 548, 549, 550
shipbuilding materials, 350
stone, diamond conference, 111, 112, 113, 114, 115, 455
tools, 67
Inertness of diamond, chemical, 104
Influence
abrasive scale of granite on diamond blade evaluation, 268, 269, 270
carbide grade on grinding wheel wear, 71
Inserts, tungsten carbide
diamond plunge grinding, 116, 117, 118, 119
electrolytic grinding with metal-bonded diamond wheels, 116, 117, 118, 119
Inspection
jewel bearings, 210
time reduced by vibrating diamond, 456, 457
Installation of lifts, diamond core drills, 228
Instrument for measuring diamond tool angles, 353, 354, 355
Interlocking pins building blocks, 56
Internal grinding wheels, diamond dressing, 271
Investigation
electrolytic grinding tungsten carbide, 182
friction, diamond electro-plated surfaces, 212, 213, 214, 215
Isostatic compaction of metal powders, 131
Italian optical industry, diamond, 102, 103

J
Japanese
camera industry, diamond tools, 526, 527, 528, 529
industry, industrial diamond, 531
Jewel bearings
cup, 206
diamond
drilling, 206, 207, 208, 209, 210
polishing, 206, 207, 208, 209, 210
shaping, 206, 207, 208, 209, 210
hole
bar, 206, 207, 210
cupping, 209
polishing, 209
olive, 206, 210
inspection, 210
mass production, 206, 207, 208, 209, 210
vee, 207, 210
Jig
diffusion, vitreous silica, 391
polishing optical crystals, 181

K
Kaolinite, 458
inclusion in diamond, 460
Kemet
lap
diamond
compound
copper for sharpening microtome knives, 441, 442
preparing metallurgical specimen, 441
polishing glass, 441
hardness, 438
lapping
metals, 439
refractories, 439, 441
polishing
metals, 439
refractories, 439, 441
Kerbs, diamond sawing stone, 387, 388, 389
Knives, microtome, sharpening with diamond compound and Kemet copper laps, 441, 442

L
Laboratory evaluation of standard diamond content of diamond grinding wheels, 211
Lapping
automatic of press tools, 216, 217
diamond
bores of needles, 437
compound
silicon semiconductor slices, 256, 257
tools, 264, 265
hard coatings, 494
ruby laser rod, 390, 393
Kemet
metals, 439
refractories, 439, 441
machine, 546
vertical automatic, 216, 217
plates and diamond compound for polishing soft materials, 438, 439, 440, 441, 442
titanium carbide bore with diamond charged steel wire, 259
Laps
diamond, brass, 480, 481
Kemet
copper and diamond compound for sharpening microtome knives, 441, 442
diamond
compound preparing metallurgical specimen, 441
polishing glass, 441
hardness, 438
Laser
drilling diamond dies, 500
ruby rod, diamond
grinding, 390, 393
lapping, 390, 393
polishing, 390, 393

Lathe
diamond, 318
tools, electrolytic diamond grinding of carbide, 27, 28, 29, 30, 31, 32, 33
Layer, abrasive, effect on grinding wheel, 68, 69, 71
Lead pencils, automatic manufacture with diamond tools, 412, 413
Lens
diamond edge grinding, 529
manufacture, 103, 527, 529
mounting, aluminium tubes, diamond turning, 529
unit bore, diamond finishing, 3
zoom
body turning
copy, 3
diamond, 5
components, diamond
boring, 3
machining, 2, 3, 4, 5
unit
diamond machining problems, 5
television, 2, 3, 4, 5
Lenses
contact
diamond machining, 304, 305, 306, 307
tolerances, 307
corneal
bifocal, 307
spherically-curved, 305
diamond
curve generating, 156
edging, 156
Life of diamond
dressing rollers, 26
saw, 113
Lift installations, diamond core drills, 228
Lightweight swivelhead diamond drill, 546
Limits of application of diamond dressing rollers, 26
Lines, steel guy, 545
Liquid syngenetic inclusions in diamond, 408
Low cost of diamond form grinding, 411

M
Machine
automatic
grinding diamond gramophone styli, 175
lapping vertical, 216, 217
diamond
burnishing, 553
cutting stone, 161, 163
electrolytic grinding, 29
sawing stone, requirements, 314
tooled for manufacturing hollow building blocks, 57
frame sawing, 365
lapping, 546
processing ruby rods, 180
test in dry cutter grinding, 396
tool, ultrasonic rotary, 271
Machining
characteristics of vitreous silica, 390
diamond
contact lenses, 304, 305, 306, 307
household appliances, 434, 435, 436, 437
prisms, 529
Portland stone, 296, 297, 298, 299, 300
quartz crystals, 202, 203, 204, 205
final operations, 205
seminar, 179, 302, 303
titanium carbide, 259
tools
stone, 310, 311, 312, 313, 314, 315, 316, 365, 366, 367
tungsten carbide, 342, 343, 344, 345, 346, 347
quality control, 345
vacuum cleaners, 434, 435, 436, 437
vitreous silica, 390, 391, 392, 393
ultrasonic, 391
zoom lens
components, 2, 3, 4, 5
unit machining problems, 5
finish of missile heat shield, 308
problems, diamond machining of zoom lens units, 5
spark-erosion of tungsten carbide press tools, 483
Magnetic compaction of metal powders, 131
Magnetite inclusions in diamond, 407, 460
Making
dies, 265
punches, 265
tools with diamond compound, 264, 265
Mandrel, diamond plated drilling, 259
Manufacture
automatic of lead pencils with diamond tools, 412, 413
diamond tool, 157, 158, 159
lens, 103, 527, 529
Portland coping stones, 300
prism, 527, 529
Manufacturing
hollow building blocks on diamond-tooled machine, 57
motor, applications of diamond honing, 171, 172, 173
Masonry saw, 34
Mass production
diamond
honing tools, 168, 169, 170, 171, 172, 173, 218, 219, 220, 221
profile dressing rollers, 61, 62, 63, 64, 65, 66
jewel bearings, 206, 207, 208, 209, 210
Material
bond for diamond honing tools, 171
building, Portland stone, 397
diamond burnishing, 553, 555
industrial diamond, 104, 105, 106, 107, 108, 109, 110
shipbuilding industry, 350
soft, polishing with lapping plates and diamond compound, 438, 439, 440, 441, 442
ultra-hard, 507
Measurement
diamond micron powder, 487, 488
scaife texture, 444
Measuring
instrument for diamond tool angles, 353, 354, 355
set-up for wear, 68
size of diamond powder, 484, 485, 486, 487, 488, 489
Mechanical
properties
rocks, 319
specimens of ground steel, 13
tang, 500
Mechanism
cutting stone, 311
polishing scaife, 443, 444
Metal
bonded diamond wheels
electrolytic grinder for grinding tungsten carbide throwaway tips, 446, 447, 448, 449
grinding
discharge-assisted, 535
electrolytic, 535
tungsten carbide inserts, 116, 117, 118, 119
bonding of diamond, 495
chemical, 438, 439, 440, 441, 442
clad diamond
abrasive, 6
patents, 81
resin-bonded wheel, 12
cladding of diamond, 8
diamond turning, 156
hard, profile grinding, 360, 361
Kemet
lapping, 439
polishing, 439
powders
compaction, 131
continuous, 131
explosive, 131
isostatic, 131
magnetic, 131
vibratory, 276
consolidation, 131
rolling, 131
Metallurgical specimens, prepared with diamond compound and Kemet laps, 441
Metallurgy, powder, 131, 276
Metamorphic rocks, 310
Meter, runway friction, 181
Method
diamond
dressing, 14
sawing stone, 315
experimental of etching diamond natural faces, 498
grinding comparison with plunge grinding, 72, 73, 74
profile dressing, 23
use diamond dressing rollers, 26
wall cavity, 56
Micron diamond powder
measurements, 487, 488
sieving, 487
Microanalysis, electron probe, 551
Microscope, image splitting eyepiece, 487
Microscopic examination of diamond powder, 484, 485
sieved, 485
Microtome knives sharpened with diamond compound on Kemet copper laps, 441, 442
Mill, carbide face, electrolytic diamond grinding, 27, 28, 29, 30, 31, 32, 33
Milling, diamond of ultra-precision threads, 5
Mineralogy handbook, 276
Mineral inclusions in diamond
epigenetic, 403, 458, 459, 460, 461
syngenetic, 402, 403, 404, 405, 406, 407, 408, 409, 410
Miniature bench drill, 130
Mirrors, camera, 155
Missile
forged aluminium components, diamond finishing bores, 54, 55
heat shield
diamond shaping, 308, 309
finish machining, 308
test coring, 308
Models, crystal surface atlas, 131
Motor
electric armatures, diamond turning, 122, 123
manufacturing, applications of diamond honing, 171, 172, 173
Mould, electroforming for diamond bonding, 537

Mounts, diamond dressing tool, 15
Mounting tubes, aluminium lens, diamond turning, 529
Multi-point diamond dressing tools, 16
profile, 17
Muscovite, 458

N
Natural
diamond
crystal structure, 104, 105
defects, 104, 105
faces
etching, 498, 499
discussion, 499
experimental method, 498
observations, 498, 499
results, 498, 499
octahedral, trigons, 272, 273, 274, 275
stone
composition, 310
origin, 310
properties, 310
Neat oils for grinding, 505
Needles
armature, wire feeding, 437
bores, diamond lapping, 437
Noiseless conversion in hotels by diamond drilling, 532

O
Observations, etching natural diamond faces, 498, 499
Occlusion plating, bonding diamonds, 536
Octahedral diamond faces
natural, trigons, 272, 273, 274, 275
synthetic, growth spirals, 127, 128, 129
Oils, neat grinding, 505
Olive hole in jewel bearings, 206, 210
Olivine inclusions in diamond, 405
Operating
parameters diamond cutting of stone, 163
variables effect in wet surface grinding, 394
Optical
crystals polishing jig, 181
diamond
grinding, 155
glass, 102, 103
Italian industry, 102, 103
surface grinding, 155
glass, 103
Optically perfect Perspex prisms produced by single-point diamond tools, 102, 103
Optics
revolutionizing diamond, 154, 155, 156
space exploration, 154
Origin, natural stone, 310

P
Pantograph controlled rotary diamond tool, 356, 357, 358, 359, 360, 361
Parallelism of stone blocks, 164
Parameters
effect in steel grinding, 543
operating diamond cutting stone, 163
Particles, examination, diamond grinding wheel, replica preparation, 75, 77
Patents, metal-clad diamonds, 81
Pencils, lead, automatic manufacture with diamond tools, 412, 413
Pentlandite, 458
inclusions in diamond, 460
Performance of diamond
drilling crowns, 111
resinoid-bonded wheels, 394, 395, 396, 397, 398, 399, 400
Periscopes, 155
Perspex prisms, optically perfect, producing by single-point diamond tools, 102, 103
Physico-chemical bonding of diamond, 497
Physics, solid state, conference, 507
Piezo-electric properties in quartz crystals, 202
Pins, interlocking in building blocks, 56
Plasma
coating, 490
plating, 490
Plastics, glass reinforced ventilator components, diamond
shaping, 260, 261, 262, 263
trimming, 260, 261, 262, 263
Plates
end-, 163
lapping and diamond compound for polishing soft materials, 438, 439, 440, 441, 442
Plating
occlusion bonding of diamond, 536
plasma, 490
Plug gauges, carbide, 343
Plunge grinding
comparison of grinding methods, 72, 73, 74
diamond
cup wheel wear, 68, 69, 70, 71, 72, 73, 74
tungsten carbide inserts, 116, 117, 118, 119
tungsten carbide research, 68, 69, 70, 71, 72, 73, 74
Points, diamond, stipple engraving of glass, 222, 223
Polisher, ultrasonic of diamond dies, 318
Polishing
bar hole in jewel bearings, 209
diamond
jewel bearings, 206, 207, 208, 209, 210
glass with Kemet lap, 441
ruby laser rod, 390, 393
scaife, surfacetex ture, 443, 444, 445
jig for optical crystals, 181
Kemet
metals, 439
refractories, 439, 441
mechanism of scaife, 443, 444
silicon semi-conductor slices with diamond compound, 256, 257
soft materials on lapping plates with diamond compound, 438, 439, 440, 441, 442
stone, 367
Polycrystalline syngenetic inclusions in diamond, 407
Portland stone
basebed, 297
building material, 297
coping manufacture, 300
diamond
finishing, 296, 297, 298, 299, 300
machining, 296, 297, 298, 299, 300
sawing, 296, 297, 298, 299, 300
extraction, 297, 299
primary sawing, 299
roach, 297
whitbed, 297
Positioning
diamond blades, 164
stone block, 163, 164
Powder
diamond
microscopic examination, 484, 485
sieved, 485
micron measurement, 487, 488
precision industry, seminar, 547, 548, 549, 550
sieving, 485
micron, 487
size
defining, 484, 485, 486, 487, 488, 489
measuring, 484, 485, 486, 487, 488, 489
metal
compaction, 131
continuous, 131
explosive, 131
isostatic, 131
magnetic, 131
vibratory, 276
consolidation, 131
extrusion, 131
rolling, 131
metallurgy, 131, 276
Precision
diamond borer, 411
grinding
application of diamond tools, symposium, 258
profile, 356, 357, 358, 359, 360, 361
industry seminar, diamond powders, 547, 548, 549, 550
tools, 547, 548, 549, 550
ultra-, thread, diamond milling, 5
Preparation
replica examination of diamond grinding wheel
crystal, 75
particles, 75, 77
scaife, 443, 444, 445
Preparing metallurgical specimens with diamond compound on Kemet laps, 441
Press tools
automatic lapping, 216, 217
tungsten carbide
finish grinding, 483
forming with diamond wheel, 480, 481, 482, 483
spark-erosion machining, 483
Pressure, contact
diamond honing, 171
electrolytic grinding, 30
Primary sawing of Portland stone, 299
Prism
diamond machining, 529
manufacture, 527, 529
optically perfect Perspex, produced with single-point diamond tools, 102, 103
Probe
diamond tipped, 457
electron microanalysis, 551
Problems, when diamond machining zoom lens units, 5
Procedure, wear test, 68
Process, diamond
burnishing, 552
profile dressing rollers, 61, 63
Processing ruby rods, 180
Producing Perspex prism optically perfect with single-point diamond tools, 102, 103
Production
automatic of diamond gramophone styli, 174, 175, 176, 177, 178,

cost, diamond sawing stone, 165, 166
grinding seminar, 267
diamond development, 414, 415, 416
mass
diamond
honing tools, 168, 169, 170, 171, 172, 173, 218, 219, 220, 221
profile dressing rollers, 61, 62, 63, 64, 65, 66
jewel bearings, 206, 207, 208, 209, 210
Profile
dressing
crushing, 23
diamond
rollers
application, 64
automobile industry, 61, 62, 63, 64, 65, 66
mass production, 61, 62, 63, 64, 65, 66
process, 61, 63
tools
multi-point, 17
single-point, 17
grinding wheels, 22, 23, 24, 25, 26
history, 22
methods, 22
grinding
hard metals, 360, 361
precision, 356, 357, 358, 359, 360, 361
truing abrasive wheels, 256, 257, 258, 259
Profiling rollers, diamond
accuracy, 25
surface finish, 25
Programming, punch tape for cutting cultured emeralds, 251
Properties
anti-frictional of diamond, 212
mechanical
rocks, 319
specimen, ground steel, 13
natural stone, 310
piezo-electric of quartz crystals, 202
Punch
making, 265
tape programming for cutting cultured emeralds, 251
Purity of diamond, 105
Pyrrohotite, 458

Q

Quality control when diamond machining tungsten carbide tools, 345
Quartz, 458
bonding of diamond, 495
crystals
diamond machining, 202, 203, 204, 205
final operations, 205
electronics industry, 202, 203, 204, 205
frequency controllers, 202
importance of alignment, 203, 205
piezo-electric properties, 202
cutting booklet, 228
inclusions in diamond, 459

R

Rails, bridge guard, diamond core drilling, 78, 79, 80
Rapid hardness testing synthetic diamonds, 126
Recirculating coolant system, 113
Recognition of diamond inclusions, 402, 403, 404, 405, 406, 407, 408, 409, 410
Red China, synthetic diamonds, 551
Reducing
grinding costs, 317
inspection time, vibrating diamond, 456, 457
Reflection goniometer, 353, 354, 355
Refractories, Kemet
lapping, 439, 441
polishing, 439, 441
Regularity of stone blocks, 164
Reinforcing building foundations, testing, 167
Replica examination of diamond particles in grinding wheels
preparation
crystals, 75
particles, 75, 77
technique, 75, 76, 77
Report, diamond wheel, 228
Requirements
grinding fluids, 503
machine diamond sawing stone, 314
Research
coolant additives, 111, 112, 113, 114, 115
plunge grinding tungsten carbide, 68, 69, 70, 71, 72, 73, 74
Resin bonded diamond wheel
formed, 481, 483
metal-clad, 12
Resinoid bonded diamond wheel
evaluation, 394, 395, 396, 397, 398, 399, 400
performance, 394, 395, 396, 397, 398, 399, 400
Resistant, wear, coatings, diamond finishing, 490, 491, 492, 493, 494
Results, etching natural diamond faces, 498, 499
Revolutionising diamond optics, 154, 155, 156
Rim
continuous in diamond wheel, 202
width effect dry cutter grinding, 397, 398
Roach, Portland stone, 297
Rocks
classification, 310
drilling, 182
coolant additives, 111
diamond, 182
igneous, 310
mechanical properties, 319
metamorphic, 310
sedimentary, 310
Rod
diamond drill wire line standardisation, 507
ruby
laser, diamond
grinding, 390, 393
lapping, 390, 393
polishing, 390, 393
processing machine, 180
Rollers, diamond
dressing, 19, 500
application limits, 26
costs, 26
electro-deposited, 22, 23, 24, 25, 26
life, 26
method of use, 26
profile
applications, 64
automobile industry, 61, 62, 63, 64, 65, 66
mass production, 61, 62, 63, 64, 65, 66
process, 61, 63
profiling
accuracy, 25
surface finish, 25
Rolling metal powders, 131
Rotary
diamond tool pantograph controlled, 356, 357, 358, 359, 360, 361
ultrasonic machine tool, 271
Rotational
diamond circular saw
feed, 314
speed, 314
Ruby rods
laser, diamond
grinding, 390, 393
lapping, 390, 393
polishing, 390, 393
processing machine, 180
Runway friction meter, 181
Russian gem diamonds, 267
Rutile inclusions in diamond, 406

S

Satellite telescopes, 155
Saw
blades
sawing stone
circular, 111
gang, 111
setting-up, 316
tensioning, 316
diamond, 411
circular
depth of cut, 314
diameter, 313
effect of coolant additives on cutting speed, 113
rotational
feed, 314
speed, 314
segments, 313
concrete, 271
diameter, 313
diamond grit
characteristics, 315
concentration, 315
size, 315
strength, 315
life, 113
rotational speed, 314
segments, 313
frame, diamond
bladed for cutting stones, 160, 161, 162, 163, 164, 165, 166
blades, 365
coolant, 366
setting-up, 366
tensioning, 365, 366
wear, 367
effect of coolant additives on efficiency, 114, 115
segments, 365
masonry, 34
tile, diamond blade, 546
Sawing
diamond
brick
decorative facing, economy, 120, 121
effect of water coolant, 121
flint, 120
concrete floor of cowsheds, 180
stone
circular, 313
feeding system, 315
machine requirements, 314
method, 315
Portland, 296, 297, 298, 299, 300
production cost, 165, 166
frame, 365, 366, 367
diamond, 316
machines, 365

stone block
fixing, 366
size, 366
primary, Portland Stone, 299
stone
circular, 313
saw blade, 111
coolant additives, 111, 113
gang saw blade, 111
Scaife
polishing mechanism, 443, 444
preparation, 443, 444, 445
texture
measurement, 444
surface, diamond polishing, 443, 444, 445
Scale, abrasive of granite influencing diamond blade evaluation, 268, 269, 270
Sedimentary rocks, 310
Segments, diamond
diamond blades, 163
saw, 313
circular, 313
frame, 365
working, 163
Selection, diamond grit, 106, 107, 108
Sellaite, 458
inclusions in diamond, 460
Semiconducting diamond, 106
Semiconductor
cleaning trays, vitreous silica, 391
diamond heat sinks, 301
silicon slices, diamond compound
lapping, 256, 257
polishing, 256, 257
Seminar
development diamond production grinding, 414, 415, 416
diamond
grit, 224, 225, 226, 227
machining, 179, 302, 303
tool, 20, 21
industrial diamonds, 531
precision industry diamond
powders, 547, 548, 549, 550
tools, 547, 548, 549, 550
production grinding, 267
Set-up for measuring wear, 68
Setting up saw blades, 316
diamond frame, 366
Shafts, grinding gear box, 64
Shaped stone blocks, 164
Shaping
diamond
'green' carbide, 122
heat shield for missile, 308, 309
jewel bearings, 206, 207, 208, 209, 210
plastics, glass reinforced ventilator components, 260, 261, 262, 263
emeralds, cultured, 240
Sharpening microtome knives with diamond compound and Kemet copper laps, 441, 442
Shield, missile heat
diamond shaping, 308, 309
finish machining, 308
test coring, 308
Shipbuilding
diamond tools, 350, 351, 352
abrasive, 351, 352
advantages, 350, 351
range of application, 351, 352
industry, materials, 350
Sieved diamond powder, microscopic examination, 485
Sieving diamond powder, 485
micron, 487
Significance of chemical bonding of diamond, 497
Silica, vitreous
diamond
core drilling, 391
machining, 390, 391, 392, 393
ultrasonic, 391
diffusion jigs, 391
electric furnace construction, 391
machining characteristics, 390
semiconductor cleaning trays, 391
Silicate, calcium facing bricks, 120
Silicon
carbide wheels grinding sintered carbide tools, 252, 253, 254, 255
semiconductor slices, diamond compound
lapping, 256, 257
polishing, 256, 257
Single-point diamond tools
boring, 3
aluminium missile components, 54, 55
bakelite vacuum cleaner components, 435, 437
dressing, 15
profile, 17
producing optically perfect Perspex prisms, 102, 103
Sintered carbide
diamond finishing, 122, 123
grinding workpieces, 65
tools grinding with wheels
diamond, 252, 253, 254, 255
silicon carbide, 252, 253, 254, 255
Size
diamond
grit
diamond saw, 315
honing, 170
powder
defining, 484, 485, 486, 487, 488, 489
measuring, 484, 485, 486, 487, 488, 489
stone block frame sawing, 366
Slices, silicon semiconductor, diamond compound
lapping, 256, 257
polishing, 256, 257
Slicing tool, diamond, 122, 123
Slip gauges, carbide, 342
Soft materials, polishing, lapping plates with diamond compound, 438, 439, 440, 441, 442
Solid state physics, conference, 507
Space exploration optics, 154
Spark-erosion machining of tungsten carbide press tools, 483
Specimen
ground steel, mechanical properties, 13
metallurgical, preparing with diamond compound on Kemet laps, 441
Spectacle frames, gold, 264, 265
Spectrophotometer cells, 155
Speed
cutting
coolant additives effect diamond circular saw, 113
diamond honing, 171
rotational of diamond circular saw, 314
surface in diamond grinding steel, 9
Speeding cutting of cultured emeralds
automation, 248, 249, 250, 251
diamond, 248, 249, 250, 251
Spherically curved corneal lenses, 305
Spiral growth in octahedral faces of synthetic diamonds, 127, 128, 129
Splitting image eyepiece microscope, 487
Standard diamond content in diamond wheels, 362
laboratory evaluation, 211
Standardization
diamond blades, 166
wire line diamond drill rod, 507
Steel
body of diamond blades, 163
grinding
diamond, 6, 7, 8, 9, 10, 11, 12, 13
combination carbide, 6
economic, 6, 7, 8, 9, 10, 11, 12, 13
surface speed, 9
effect of parameters, 543
temperatures, 539, 540, 541, 542, 543
wheel
aluminium oxide, 539, 540, 541, 542, 543
synthetic diamond, 539, 540, 541, 542, 543
guy lines, 545
specimen, ground, mechanical properties, 13
wire, diamond charged, lapping titanium carbide bore, 259
Stipple engraving glass with diamond points, 222, 223
Stone
block
frame sawing
fixing, 366
size, 366
horizontality, 164
parallelism, 164
positioning, 163, 164
regularity, 164
shape, 164
verticality, 164
circular sawing, 313
cutting
coolant, 164
diamond
bladed frame saw, 160, 161, 162, 163, 164, 165, 166
machines, 161, 163
operating parameters, 163
theory, 160
mechanism, 311
technique, 164
tensile stress, 164
grinding, 367
industry diamond conference, 111, 112, 113, 114, 115, 455
tools, 67
machining with diamond tools, 310, 311, 312, 313, 314, 315, 316, 365, 366, 367
natural
composition, 310
origin, 310
properties, 310
polishing, 367
Portland
basebed, 297
building material, 297
coping, manufacture, 300
diamond
finishing, 296, 297, 298, 299, 300
machining, 296, 297, 298, 299, 300
sawing, 296, 297, 298, 299, 300
extraction, 297, 299
primary sawing, 299
roach, 297
whitbed, 297
sawing
coolant additives, 111, 113

circular saw blade, 111
diamond
circular, 313
feeding system, 315
machine requirements, 314
method, 315
production cost, 165, 166
gang saw blade, 111
Strength of diamond grit in diamond saw, 315
Stress, tensile, stone cutting, 164
Straight diamond dressing tools, 15, 16
Structure of diamond, 104
natural crystal, 104, 105
Stub axles, grinding, 66
Styli
diamond gramophone
automatic
grinding
cycle, 177
machine, 175
production, 174, 175, 176, 177, 178
bonding, 495, 497
elliptical, 178
Sulphide mineral inclusions in diamond, 460
Surface
bearing, diamond electroplating, 215
crystal models atlas, 131
electroplated diamond
applications, 212
friction investigation, 212, 213, 214, 215
finish, diamond
burnishing for improving, 552, 553, 554, 555
honing workpiece, 170
profiling rollers, 25
grinding
optical, 155
glass, 103
wet, 394, 395, 396
effect
diamond concentration, 394, 395, 396
operating variables, 394
volumetric feed rate, 394
speed diamond grinding steel, 9
tester coating, 181
texture, scaife, diamond polishing, 443, 444, 445
Swivelhead lightweight diamond drill, 546
Symposium, precision grinding application of diamond tools, 258
Syngenetic inclusions in diamond
gas, 408
liquid, 408
mineral, 402, 403, 404, 405, 406, 407, 408, 409, 410
polycrystalline, 407
Synthetic diamond
exhibition, 81
octahedral faces growth spiral, 127, 128, 129
rapid hardness testing, 126
Red China, 551
well drilling, bits, 317
wheel for grinding steel, 539, 540, 541, 542, 543
System, recirculating coolant, 113

T

TV-tower anchorage, diamond drilling, 544, 545
Table traverse effect in dry cutter grinding, 397
Tang, mechanical, 500
Tape programming, punch for cutting cultured emeralds, 251
Technique
cutting stone, 164
replica for examination diamond grinding wheels, 75, 76, 77
x-ray diffraction identifying diamond inclusions, 402, 403
Technology, diamond wheel, 480, 481, 482, 483
Telescopes, satellite, 155
Television camera zoom lens units, 2, 3, 4, 5
Temperature
control test area, 155
grinding alloy steel, 539, 540, 541, 542, 543
Tenacity diamond fusion bonding, 157
Tensile stress stone cutting, 164
Tensioning saw blade, 316
diamond frame, 365, 366
Test
area temperature control, 155
coring
diamond, 167
missile heat shield, 308
machine dry cutter grinding, 396
procedure, wear, 68
Tester
hardness, 551
diamond tipped, 457
surface coating, 181
Testing
rapid hardness of synthetic diamonds, 126
reinforcing building foundations, 167
Texture of scaife
measurement, 444
surface, diamond polishing, 443, 444, 445
Theory of diamond stone cutting, 160
Thermocouple, 539
Threads, ultra-precision, diamond milling, 5
Throwaway tungsten carbide tips grinding with metal bonded diamond wheels on electrolytic grinder, 446, 447, 448, 449
Tile saw, diamond blade, 546
Time
honing, 168, 169, 170
inspection, reduced by vibrating diamond, 456, 457
Tipped, diamond
hardness tester, 457
probe, 457
Titanium carbide
bore lapping with diamond charged steel wire, 259
diamond machining, 259
Tolerances for contact lenses, 307
Tool
carbide
lathe, electrolytic diamond grinding, 27, 28, 29, 30, 31, 32, 33
sintered, grinding with
diamond 252, 253, 254, 255
silicon carbide, 252, 253, 254, 255
diamond
angles measuring instrument, 353, 354, 355
applications, 122, 123
precision grinding symposium, 258
automatic manufacture of lead pencils, 412, 413
burnishing, 552
dressing
impregnated, 317
multi-point, 16
profile, 17
single-point, 15
profile, 17
straight, 15, 16
drilling, 122, 123
exhibition, 81
unit, 364
filing, 122, 123
grinding, 122, 123
honing, 122, 123
bond materials, 171
mass production, 168, 169, 170, 171, 172, 173, 218, 219, 220, 221
industry
building, 56, 57, 58, 59, 60
Japanese camera, 526, 527, 528, 529
precision, seminar, 547, 548, 549, 550
stone, conference, 67
machining stone, 310, 311, 312, 313, 314, 315, 316, 365, 366, 367
manufacture, 157, 158, 159, 533-538
rotary, pantograph controlled, 356, 357, 358, 359, 360, 361
seminar, 20, 21
shipbuilding, 350, 351, 352
abrasives, 351, 352
advantages, 350, 351
range of application, 351, 352
single-point
boring, 3
producing optically perfect Perspex prisms, 102, 103
slicing, 122, 123
holders for diamond dressing, 15
lapping with diamond compound, 264, 265
machine, rotary ultrasonic, 271
making, diamond compounds, 264, 265
mounts, diamond dressing, 17
press, automatic lapping, 216, 217
tungsten carbide
diamond machining, 342, 343, 344, 345, 346, 347
quality control, 345
press
finish grinding, 483
forming with diamond wheel, 480, 481, 482, 483
spark-erosion, 483
Tooled, diamond machine manufacturing hollow building blocks, 57
Tower, TV- anchorage diamond drilling, 544, 545
Training centre industrial diamonds, 266
Trays, cleaning, semiconductor, vitreous silica, 391
Trends in diamond honing, 220
Trigons on natural octahedral diamond faces, 272, 273, 274, 275
Trimming glass reinforced plastic ventilator components, 260, 261, 262, 263
Truing, profile abrasive wheels, 356, 357, 358, 359
Tubes, aluminium lens mounting, diamond drilling, 529
Tumbling, diamond, 177
Tungsten carbide
electrolytic grinding, investigations, 182
inserts, diamond
plunge grinding, 116, 117, 118, 119
wheels metal bonded electrolytic grinding, 116, 117, 118, 119
plunge grinding research, 68, 69, 70, 71, 72, 73, 74

throw-away tips, grinding on electrolytic grinder with metal bonded diamond wheel, 446, 447, 448, 449
tools
diamond machining, 342, 343, 344, 345, 346, 347
quality control, 345
press
finish grinding, 483
forming with diamond wheel, 480, 481, 482, 483
lapping, automatic, 216, 217
spark-erosion machining, 483
Turning
copy, of zoom lens bodies, 3
diamond
aluminium lens mounting tubes, 529
commutators, 435
electric motor armatures, 124, 125
metals, 156
zoom lens bodies, 5
Twist drills, carbide, 342
Types of diamond, 104

U
Ultra-
hard material (Slavutich), 507
precision threads, diamond milling, 5
Ultrasonic
machine tool, rotary, 271
machining, diamond of vitreous silica, 391
polishers for diamond dies, 318
Unit
exhibition, diamond tools, 364
lens
bore, diamond finishing, 3
zoom
diamond machining problems, 5
television, 2, 3, 4, 5,

V
Vacuum cleaner
collecting diamond dust, 437
diamond machining, components, 434, 435, 436, 437
Valve grinding, 64
Vee-jewel bearings, 207, 210
Ventilator components, glass reinforced plastics, diamond
shaping, 260, 261, 262, 263
trimming, 260, 261, 262, 263
Vertical automatic lapping machine, 216, 217
Verticality of stone blocks, 164
Vibrating diamond reduces inspection time, 456, 457
Vibratory compacting of metal powders, 276
Vitreous silica
diamond
core drilling, 391
machining, 390, 391, 392, 393
ultrasonic, 391
diffusion jigs, 391
electric furnace construction, 391
machining characteristics, 390
semiconductor cleaning trays, 391
Volumetric feed rate, effect on wet surface grinding, 394

W
Wall cavity method, 56
Water coolant, effect on diamond sawing of bricks, 121
Wear
diamond
blades, 268
frame saw, 367
wheel
cup, plunge grinding, 68, 69, 70, 71, 72, 73, 74
influence on carbide grade, 71
measuring set-up, 68
resistant coating, diamond finishing, 490, 491, 492, 493, 494
test procedure, 68
Well, synthetic diamond drilling bits, 317
Wet surface grinding, 394, 395, 396
effect
diamond concentration, 394, 395, 396
operating variables, 394
volumetric feed rate, 394
Wetting of diamond, 157, 159
Wheel
abrasive, profile truing, 356, 357, 358, 359
diamond, 411
bonded
metal
discharge-assisted grinding, 535
electrolytic
grinder for grinding tungsten carbide throw-away tips, 446, 447, 448, 449
grinding, 535
tungsten carbide inserts, 116, 117, 118, 119
resin, metal-clad, 12
resinoid
evaluation, 394, 395, 396, 397, 398, 399, 400
performance, 394, 395, 396, 397, 398, 399, 400
composite, 453
continuous rim, 202
cup, wear in plunge grinding, 68, 69, 70, 71, 72, 73, 74
dual purpose, 346
formed, bonded
epoxy-, 483
resin, 481, 483
forming tungsten carbide press tools, 480, 481, 482, 483
grinding, 318
electrolytic, 182
grinding, 29
examination replica
preparation
crystal, 75
particles, 75, 77
technique, 75, 76, 77
history film, 267
hub material, 7
sintered carbide tools, 252, 253, 254, 255
standard diamond content, laboratory evaluation, 211
importance of grinding fluids, 501, 502, 503, 504, 505, 506
report, 228
standard diamond content, 362
technology, 480, 481, 482, 483
grinding
abrasive layer effect, 68, 69, 71
diamond dressed, cutting ability, 25
dressing
diamond, 14, 15, 16, 17, 18, 19
profile, 22, 23, 24, 25, 26
internal, diamond dressing, 271
silicon carbide for sintered carbide tools, 252, 253, 254, 255
steel
aluminium oxide, 539, 540, 541, 542, 543
synthetic diamond, 539, 540, 541, 542, 543
wear, influence of carbide grade, 71
speed effect on dry cutter grinding, 397
Whitbed, Portland stone, 297
Wire
armature feeding needles, 437
line diamond drill rod standardization, 507
steel, diamond charged lapping
titanium carbide bore, 259
Workpiece
sintered carbide, grinding, 65
surface finish, diamond honing, 170

X
X-ray diffraction technique for identifying diamond inclusions, 402, 403
Xenotime, 458
inclusions in diamond, 460

Z
Zoom lens
bodies
copy turning, 3
diamond turning, 5
components, diamond
boring, 3
machining, 2, 3, 4, 5
unit
diamond machining problems, 5
television, 2, 3, 4, 5

AUTHORS' INDEX

A
Anel'chik, D. E., Lisovoi, G. Z., Filonenko, S. N.
An investigation on instantaneous temperatures in the grinding of alloy steel, 539

B
Bakul, V. N., Sagarda, A. A., Orap, A. A., Timofeev, I. D.
An investigation on the friction of diamond electroplated surfaces, 212

Bassols, C.
Diamond tool applications in a Spanish carbide factory, 122
Spanish engineers want to know more about industrial diamonds, 266

Benz, E.
The automatic production of diamond gramophone styli, 174

Büttner, A.
Results of research on the plunge grinding of tungsten carbide, 68

C
Chalkley, J. R.
The use of grinding fluids with diamond wheels, 501
Cotton, I. H., Ridding, F. L.
The finishing of hard, wear resisting coatings with diamond, 490

D

Daniel, P.
Diamond machining of zoom lens components ensures a steady picture, 2
A new concept in diamond tool manufacture, 157
Machining quartz crystals for the electronics industry, 202
An automatic machine takes the sweat out of press tool lapping, 216
Trimming and shaping glass reinforced plastic ventilator components, 260
Diamond and Portland stone, 296
Machining modern materials to space age requirements, 390

de Cat, W.
Testing the reinforcing of a supermarket foundation, 167
More room at the Brussels Hilton, 532

Dyer, H. B.
Grinding steel with diamonds, 6

E

Eckert, J. D.
A replica technique for examining crystals and for retracing particles in grinding wheels, 75

F

Farrar, R.
How diamond burnishing can help the engineer looking for improved surface finishes, 552

Fehr, M.
The Fehr reflection goniometer—an instrument for the rapid measurement of diamond tool angles, 353

Filonenko, S. N. *see* **Anel'chik, D. E., Lisovoi, G. Z., Filonenko, S. N.**

Finnigan, G.
Machining stone with diamond tools, I, 310
II, 365

Freeman, G. P., Seal, M.
Of mesh and microns, 484

G

Gauger, R.
Diamond tools for dressing grinding wheels, 14

H

Hallez, C. P.
Cutting stone with diamond blades in a frame saw, 160

Hamada, Y.
Diamond tools in the Japanese camera industry, 526

Harris, J. W.
The recognition of diamond inclusions—
I. Syngenetic mineral inclusions, 402
II. Epigenetic mineral inclusions, 458

Hervo, P.
Automation and diamonds speed the cutting of cultured emeralds, 248

Hughes, F.
Plunge grinding the chip faces of tungsten carbide (ISO grade P10) indexable inserts, 116

Hush, J. S.
Hoover diamond jubilee, 434
Take a tip . . ., 446

J

Janicot, C.
French firm cuts ceramic fuse grinding costs, 450

K

Kamyszek, K., Sikora, R.
Diamond tools in shipbuilding, 350

Kirmse, W.
Diamond honing tools in mass production, I, 168
II, 218

L

Leine, K. H.
Drilling through the granite foundations of Stockholm castle, 401

Lindblad, F. W.
A proposed new standard diamond content for laboratory evaluation of diamond grinding wheels, 211

Linholm, A. A. L.
De Beers research for the stone industry, 111

Lisovoi, G. Z. *see* **Anel'chik, D. E., Lisovoi, G. Z., Filonenko, S. N.**

Luce, E. C., Newell, C. R., Sheehy, J.
An abrasive scale for granite and its influence on diamond blade evaluation— 268

M

Marsden, P.
Diamond and the optical revolution, 154
The eyes have it, 304
Tungsten carbide plus diamond equals precision, 342
Press-tool makers roll their own !, 480

N

Newell, C. R. *see* **Luce, E. C., Newell, C. R., Sheehy, J.**

O

Orap, A. A. *see* **Bakul, V. M., Sagarda, A. A., Orap, A. A., Timofeev, I. D.**

P

Pálka, V.
Grinding sintered carbide tools with silicon carbide and diamond wheels —a comparison, 252

Patel, A. R., Ramachandran, N.
Growth spirals on octahedral faces of synthetic diamond, 127

Patel, A. R., Patel, S. M.
Observations on trigons on natural octahedral faces of diamond, 272
Etching of (100) faces of natural diamond, 498

Patel, S. M. *see* **Patel, A. R., Patel S. M.**

Pluzhnik, V. I., Skripko, G. F.
Rapid hardness testing of synthetic diamonds, 126

R

Raal, F. A.
The importance of bonding to diamond surfaces in industrial application, 495

Ramachandran, N. *see* **Patel, A. R., Ramachandran, N.**

Ridding, F. L. *see* **Cotton, I. H., Ridding, F. L.**

S

Sagarda, A. A. *see* **Bakul, V. N., Sagarda, A. A., Orap, A. A., Timofeev, I. D.**

Seal, M.
Diamond—as a crystal and as an industrial material, 104

Seal, M. *see* **Freeman, G. P., Seal, M.**

Sheehy, J. *see* **Luce, E. C., Newell, C. R., Sheehy, J.**

Sikora, R. *see* **Kamyszek, Sikora, R.**

Skripko, G. F. *see* **Pluzhnik, V. I., Skripko, G. F.**

Skuse, P. K.
The performance and evaluation of resinoid bonded diamond wheels, 394

Smith, N. R.
Precision profile grinding development using pantograph controlled rotary diamond tooling, 356

Spiro, P.
Diamond bonding by electroforming and electroplating, 533

Steinmetz, K.
Diamond tools open up new possibilities for the building industry, 56

Swan, R. J.
A new development in lapping plates for the superfine polishing of soft materials using diamond compound, 438

T

Timofeev, I. D. *see* **Bakul, V. N., Sagarda, A. A., Orap, A. A., Timofeev, I. D.**

Trancu, T. C.
Diamonds and new techniques in the Italian optical industry, 102

V

Veldhuizen, E. C.
Dutch technicians hold a 'Fine-technical day' in Rotterdam, 258
How rolled gold spectacle frames get that polished look, 264

Vogel, S.
Diamond profile dressing rollers and their use in the automobile industry, 61

W

Weiss, L.
The electrolytic grinding of carbide tipped lathe tools and face mills, 27

Wild, H.
Profile dressing of grinding wheels with diamond electro-deposited rollers, 22

Y

Yarnitsky, Y.
Surface texture of the scaife and diamond polishing, 443

MISCELLANEOUS ARTICLES

The art of stipple engraving, 222
Book Reviews, 131, 182, 276, 319
British diamond drill firm opens new factory, 348
British firm halves the cost of producing decorative facing bricks, 120
De Beers Grit Distributors Seminar, 224
De Beers-UGIMA round table conference on diamonds in the stone industry, 455
Diamond Powders and Tools in Precision Industry—The Geneva Seminar, 547
Diamonds help automate manufacture of lead pencils, 412

Diamonds shape heatshield for the Minuteman missile, 308
Diamond tool seminar at the 10th E.M.T.E., 20
Diamond works new super-carbide to 0.00002 in., 259
Drilling on Bald Mountain to help anchor a new TV-tower, 544
Facets of the Industry, 34, 130, 181, 271, 318, 411, 500, 546
Finishing three critical bores of a forged aluminium missile component, 54
First ever visit of De Beers Chairman to Japan, 530
14,000 holes to make a bridge safe, 78
Generally Speaking, 1, 53, 101, 153, 201, 247, 295, 341, 389, 433, 479, 525
Gothenburg Stone Conference, 67
Hard Facts, 81, 180, 228, 267, 317, 363, 417, 454, 507, 551
Lapping and polishing silicon semiconductor slices, 256
The mass production of jewel bearings, 206
Mr. F. W. Lindblad's new standard proposal—our readers reply, 362
A novel system for diamond turning electric motor armatures, 124
The Paris Seminar on Diamond Machining, 302
Recent Developments in Production Grinding with Diamonds (London Seminar), 414
Three important seminars planned for 1968, 179
20th Anniversary of the IDA of Japan and a De Beers Seminar, 531
Type IIa diamonds used as heat sinks for semiconductors, 301
Van Moppes new mobile exhibition unit, 364
Vibrating diamond reduces jet parts inspection time by 75%, 456

NAME INDEX

A
ASAM *see* **American Society for Abrasive Methods**
ASTM *see* **American Society for Testing Materials**
Academy of Fine Arts of Florence, 223
Adamant Research Laboratory, 75, 77
Adamson, P., 228
Agarwal, M. K., 272, 275
Akroyd, D. G., 225, 226
Alcock, Bob, 1, 201, 295, 341, 433, 479
Amelinckx, S., 127, 129
American Society for Abrasive Methods (ASAM), 1, 13, 506
American Society for Testing Materials (ASTM), 489
Amrhein, H. G., 74, 119
Anderman, J., 74
Andriesse, D. J., 225, 550
Anel'chik, D.E., 539
Angress, J. F., 110
Association of Diamond Manufacturers (SYFODIA), 302

B
Baiduk, B. V., 319
Baier, E., 276
Bakul, V. N., 212, 214, 215, 267
Barash, M., 13
Barcelona University, 266
Bassols, C., 122, 247, 266
Bateson, B., 415
Battelle Memorial Institute, 489
Bauer, M., 402, 405, 408, 410
Baugh, A. G., 551
Bellenger, M., 182, 276
Bellib, M. B. A., 547, 548, 549
Belling, N. G., 316
Bennett, O. B., 224, 226, 227, 547, 548, 550
Benz, E., 174
Berger, M., 352
Berman, R., 110, 460, 461, 497
Bilsland, R. A., 416
Blackstone, D., 304
Blackstone, M., 304
Bladergroen, 258
Blocher, D., 548, 549
Bobrievich, A. P., 408, 410, 460, 461
Bokuchava, G. V., 255
Bond, W. L., 110
Bondarenko, M. N., 410, 461
Bonijoly, P., 179, 302, 303
Borse, D., 67
Boswell, W. L., 125
Boutan, M. E., 402, 410
Bovenkerk, H. P., 110, 127, 129
Bowden, F. P., 212, 215, 503, 506
Brewster, Sir David, 402, 408, 410
Bristol University, 362, 495
British Glass Industry Research Association, 441, 442
British Industrial Exhibition, Bucharest, 507
British Iron & Steel Research Association, 441, 442
British Museum (Natural History), 461
British Standards Institution, 489
British Technology Index, 180
Brno International Trade Fair, 180
Brookes, K. J. A., 538
Brügger, R., 548, 549
Bruet, E. D., 459, 461
Burls, J., 226, 227, 367, 416, 454, 489, 549
Burton, W. K., 127, 129
Büttner, A., 21, 68, 74

C
Cabrera, N., 127, 129
Caleo, C., 455
Campbell, B. T., 417
Campbell, N. A. D., 225, 416
Carpentier, R. G., 308, 309
Carrara Chamber of Commerce, 455
Catelle, W. R., 402, 410
Caveney, R. J., 77
Chalkley, J. R., 215, 267, 362, 414, 479, 490, 501
Chang, W. H., 109
Chapple, A., 226, 549
Chekin, G. I., 555
Chepovetskii, I. Kh., 221
Chernov, A. A., 127
Cheshire, R. M., 115
Chesley, F. G., 110
Childers, D. C., 507
Chrenko, R. M., 110
Christian, E., 55
Clark, C. D., 110
Coathup, D. E., 551
Colding, B., 454
Colony, R. J., 402, 410
Configliacco, E., 227
Conradi, V., 226
Conte, N. J., 412
Cornely, H., 221
Correns, C. W., 402, 410
Cotton, I. H., 267, 400, 415
Cotty, W. F., 225
Crookes, Sir William, 402, 410
Custers, J. F. H., 110, 489, 497

D
DIN *see* **Deutsche Industrie-Normen**
Da Vinci, Leonardo, 304
Damour, A., 402, 410
Daniel, P., 2, 157, 202, 216, 227, 260, 296, 390, 538
Daniel, P. A. *see* **Daniel, P.**
Darrow, K. A., 110
Daout, M., 548, 549
Dauncey, G. B., 111, 115
Davidson, A., 258
Davidson, C. F., 460
Dawkins, J. F., 215
de Barra, C., 225, 549
de Cat, W., 167, 532
de Morpurgo, J. L. S., 227
Deer, W. A., 406, 407, 410, 459, 461
Degen, J., 548, 549
Dell'amico, M., 455
Denton, J., 415
Department of Chemical Crystallography, University College, London, 402
Des Cloiseaux, A., 402, 410
Desai, C. C., 272, 275
Deutsche Industrie-Normen (DIN), 489
Diamond Conference, University of Bristol, 495
'Diamond in the Stone Industry' Conference, 160
Diamond Research Laboratory, 1, 6, 21, 111, 112, 113, 114, 115, 116, 179, 224, 302, 366, 367, 415, 531, 548, 549
  Industrial Division, 226, 479, 495
Ditchburn, R. W., 110
Dlouhy, M., 255
du Preez, L., 110
Dumas, A., 402, 410
Dunn, H., 67
Durafourg, J., 548, 549
Dutch Association of Finetechnics (NVFT), 247, 258
Dyer, H. B., 1, 6, 13, 20, 110, 224, 227, 267, 302, 303, 316, 350, 352, 414, 416, 497

E
EMTE *see* **European Machine Tool Exhibition**
Eckert, J. D., 75
Electric Research Laboratory, 531
Eppler, W. F., 402, 405, 406, 407, 410
Ern, H., 415
Escard, J., 402, 406, 410
Eskenazi, L., 226, 549, 550

European Federation of Abrasive Products Manufacturers (FEPA), 166, 302
European Machine Tool Exhibition, 10th, 20, 221
Eustace, P. D., 226
Evans, F., 545
Evans, T., 105, 110, 498, 499
Evelyn, J., 402, 410
Eversole, W. G., 295

F
FEPA *see* **European Federation of Abrasive Products Manufacturers**
Facco, A., 367
Farrar, R., 226, 489, 552
Faulkner, E. A., 110
Fehr, M., 353
Fejer, E. F., 461
Fendler, E., 226
Ferriman, G. H., 225, 227, 303, 416, 550
Fersman, A., 498, 499
Filonenko, S. N., 539
Finnigan, G., 226, 267, 302, 310, 365, 415, 455, 531, 550
Fitzsimmons, J. P., 319
Foire de Paris, 228
Fortune, 249
Fox, J. J., 110
Frank, F. C., 127, 129, 272, 275, 362
Freeman, G. P., 74, 479, 484, 489, 549
Fricou, P., 179, 302, 303
Friedel, G., 402, 410
Furrer, G., 455
Futergendler, S. I., 403, 406, 407, 410

G
GOST *see* **USSR State Standard**
GTMA *see next item*
Gauge & Tool Makers' Association of Great Britain (GTMA), 180, 417
Gauger, R., 14
Gdansk Polytechnic, 350, 352
Gelfand, 255
Gelles, I. L., 110
Gertsch, G., 548, 549
Giardini, A. A., 402, 405, 410
Giglia, B., 412, 413
Gilson, P., 249, 251
Gladding, J., 416
Gnevushev, M. A., 403, 405, 406, 407, 408, 410
Goldschmidt, V., 498, 499
Goswami, K. N., 127, 129, 272, 275
Gothenburg Stone Conference, 67
Goullet, J., 548, 549
Grantham, D. R., 459
Graver, W. J., 363
Grazen, A. E., 536, 538
Green, T. R., 81
Greenwood, F., 222
Grenville-Wells, H. J., 408, 410
Griffin, L. J., 127, 129
Grodzinski, P., 501, 506
Groszman, F. K., 10, 13
Gübelin, E., 402, 405, 407, 408, 410

H
Haasis, G., 221
Hagelqvist, L., 225, 226
Hallez, C. P., 67, 160, 179, 302, 303, 365, 367
Hamada, Y., 526
Hanover Diamond Tool Seminar, 116
Hanover Technical University, 61, 68
Hanwell, A. E., 215
Hardwick, J., 538
Harley, Sir Stanley J., 417
Harris, J. W., 402, 458, 461
Harrison, E. R., 498, 499
Hausner, H. H., 131, 276
Hayward, D., 549
Haywood, R. A., 179, 302
Heinen, D., 550
Hellbing, P., 225
Henriques, R., 461
Hepner, I., 413
Hepworth, A., 390
Hervo, P., 227, 248, 303
Hinse, F., 57
Hiromatsu, Y., 531
Hobby Industry Association of America, 81
Holly, T. J., 308
Hoover, W. H., 434
Houdek, J., 255
Houghton, P. S., 501, 506
Howie, R. A., 406, 407, 410, 459, 461
Hughes, F., 21, 74, 116, 119, 226, 227
Hull, E. H., 555
Hush, J. S., 434, 446

I
IDIB *see* **Industrial Diamond Information Bureau**
ITEC Training Centre, Barcelona, 247
Illinois Institute of Technology, 507
Industrial Diamond Association of America Inc, 1, 6, 81, 267, 363, 489, 506
Industrial Diamond Association of Japan, 525, 531
Industrial Diamond Information Bureau (IDIB), 81, 101, 153, 154, 225, 227, 247, 258, 266, 267, 316, 342, 367, 389, 400, 416, 433, 454, 480, 489, 550
'Industrial Diamond Revolution' Conference, 6
Institute of Finishing Technology and Machine Tools, 68
Institute of Physics and the Physical Society, 507, 551
Materials Testing Group, 180
Institute for Synthetic Superhard Materials, Kiev, 212, 267, 317, 507 (*Also known as* **Institute of Superhard Materials**, 212, *and* **Institute of Ultrahard Materials**, 126)
International Congress on Diamonds in Industry, 153
International Industrial Diamond Conference, Oxford, 10, 12, 506
International Machine Tool Exhibition, 179
International Machine Tool Exhibition, Olympia 1968, 317
Israel Institute of Technology, 443

J
Jackson, W. B., 228
James, G. S., 77
Janicot, C., 179, 302, 303, 450
Jannetaz, E., 408, 410
Johnson, P. K., 131, 276
Jolivet, P., 179, 302, 303
Joris, A., 113, 115, 454
Joris, A. C. T., 11, 115, 501, 506
Junner, N. R., 459, 461

K
Kadel, K., 221
Kahane, J. B., 226
Kaiser, W., 110
Kall, H. L., 489
Kamiya, Y., 109, 110
Kamyszek, K., 350, 352
Kasagi, snr, I., 525, 531
Kats, M. Ya., 126
Kelley, L., 269
Kengott, A., 405, 410
Kennedy Memorial, J. F., 297, 298
Kennedy, R., 305
Kieffer, R., 255
Kirmse, W., 21, 168, 218
Kita, H., 531
Klipper, J., 363
Klipper, S., 363
Klipper, Sal., 363
Kliya, M. O., 127
Knake, L. E., 317
Kobayashi, S., 531
Koebel, jr, F. E., 267, 363
Koenigsberger, F., 10, 13
Kolesnichenko, G. A., 497
Kolco, J., 255
Korn, F., 530
Korn, Mrs. F., 530
Korshunov, B. S., 255
Krolikowski, W., 352
Kropotova, O. I., 110
Kruel, P., 501
Kullerud, G., 461
Kuzmick, P. L., 180

L
Lanchester College of Technology, 415
Lang, A. R., 109, 110, 408, 410
Lasher, G. J., 110
Lassoeur, J.-P., 302, 303, 550
Leine, K. H., 401
Lemmlein, G. G., 127, 129
Lindblad, F. W., 201, 211, 362, 417
Linholm, A. A. L., 20, 67, 111, 112, 225, 226, 303, 548, 550
Lipson, H., 459, 461
Lisovoi, G. Z., 539
Lloyd, W. E., 228
Lombos, L., 501, 506
London University, 499
Lonsdale, Dame K., 110, 408, 410, 460, 461
Loubser, J. H. N., 110
Luce, E. C., 67, 268
Lundblad, E., 67, 110, 454
Lundell, S., 67

M
McArthur, General, 525
McDonald, R. S., 110
McGee, J., 226
McGregor, K., 182
Machining Research Laboratory, Slovak Technical University, Bratislava, 252
McLaren, G., 113, 115, 501, 506
MacMillan, jr, W. L., 81
Malugen, J. C., 417
Manchester University, 507
Mannerberg, A. R., 489
Marsden, P., 154, 304, 342, 480
Marten, Dr., 31
Marten, K. H., 72, 74, 182
Martin, A. E., 110
Materials Testing Group, Institute of Physics and Physical Society, 180
Mathewson, jr, W. F., 501, 506
Maude-Roxby, D., 222, 223
Meadows, W., 222, 223
Meday, J. J., 489
Merlijn, J., 258
Meyer, E. O. A., 402, 405, 410
Microtechnic International Trade Fair for High Precision Techniques, Dimensional Measurement and Control, 507
Milledge, H. C., 314, 316, 367

Miller, H. J., 110, 403, 405, 408, 410, 460, 461
Millet, H., 302
Ministry of Technology, 181
Mitchell, R. S., 352
Mizgier, G., 402, 405, 410
Mizuta, M., 530
Montague, M., 550
Moscow Institute of Physical Chemistry, 295
Mot, E., 416
Mullins, W. F., 224

N
NVFT *see* Dutch Association of Fine Technics
Nabarro, R. R. N., 319
Naidich, Yu. V., 497
Napoleon I, 412
National Physical Laboratory, 180
Naville, R., 548, 549
New China News Agency, 551
New Yorker, 317
Newell, C. R., 67, 268, 269
Newman, R. C., 110
Nicholas J. E., 131
Nikolaeva, E. S., 403, 405, 407, 408, 410
Nilsson, G., 67
Nippon Diamond Kogyo Kyokai *see* Industrial Diamond Association of Japan
Norling, G., 454, 459
Norling, R. G., 226, 227
Notter, A., 74, 119, 226, 227
Novgorodov, 255
Nyanguile, B. M. O., 550
Nyqvist, G., 67

O
Onishi, S., 531
Oppenheimer, H. F., 530
Oppenheimer, Mrs. H. F., 530
Oppenheimer, P., 530
Oppenheimer, Mrs. P., 530
Orap, A. A., 212
Orlov, Yu. L., 403, 405, 406, 407, 408, 410, 459, 460, 461
Ottoson, L., 67

P
Pahlitzsch, G., 72, 74
Pálka, V., 252
Palomar, 266
Patel, A. R., 127, 129, 272, 275, 498, 499
Patel, S. M., 272, 498
Patterson, 416
Pellarono, I., 455
Perlman, A., 226
Petrdlik, M., 255
Petzold, A., 402, 410
Phaal, C., 110
Phillips, R. H., 226, 549
Picot, M. H., 549, 550
Pisek, F., 255
Plovdiv Trade Fair, 81
Pluzhnik, V. L., 126
Polytechnisch Tijdskrift, 258
Pravda, 267, 507
Precision Grinding Seminar, 295
Prentice, M., 225, 416
Price, D. W., 416
Prichard, H., 417
Prine, W. H., 538
Production Grinding Seminar, 317, 356, 394
Pryce, M. H. L., 110
Puttick, K. F., 272, 275

Q
'Queen's Award to Industry for Export Achievement', 317
Quesnel, A., 179, 302, 303

R
Raal, F. A., 110, 225, 226, 227, 415, 479, 495, 531
Rabinovicz, 503, 506
Rainier, D. M., 548, 549
Ramachandran, N., 127, 129
Ramanathan, S., 127, 129, 498, 499
Ratterman, F., 74
Ravenscroft, G., 222
'Recent Developments in Production Grinding with Diamond', Seminar, London, 1968, 400
Recoder, E., 550
Recoder, Jean, 550
Recoder, Jorge, 550
Redebaugh, G. A., 267, 363
Redko, S., 255
Regnier, M., 302
Reinhart, H., 68, 74, 489
Reith, A., 67
Reznikov, A. N., 255
Ricci, C., 225
Richardson, D. E., 551
Ricka, J., 255
Ridding, F. L., 400, 416, 490
Rigvall, B., 67, 311, 316
Rimmelin, O., 548, 549
Ringstrom, A. V., 110
Rippon College, 507
Ritter, E. J., 503, 506
Robertson, R., 110
Robinson, Sir Albert, 530
Robinson, Lady, 530
Roll, K. H., 131, 276
Royal College of Art, 223
Rubenstein, C., 10, 13
Rudd, B. J., 226
Rugini, 402

S
Sagarda, A. A., 212
Samsonov, G. V., 255
Sardar Patel University, 127, 272, 498
Sato, E., 530
Saunders, A., 131, 182, 276, 319
Sauter, D. H., 498, 499
Schilling, J., 221
Schmalz, R. F., 459, 461
Schmidt, W., 276
Schwarzkopf, P., 255
Seal, M., 101, 104, 110, 226, 461, 479, 484, 489, 549
Seal, Mrs. M., 549
Selby, J., 226, 227, 415, 550
Selby, J. S., ***see*** **Selby, J.**
Shah, C. J., 408, 410
Sharp, D., 267
Sharp, R., 1
Sharp, W. E., 403, 410, 460, 461
Sheehy, J., 67, 268, 269, 270
Sheffield Children's Hospital, 441, 442
Sheffield University, 441, 442
Shiomi, K., 531
Shiramizu, M., 531
Sierra Leone Government Diamond Office, 454
Sikora, R., 350, 352
Silveri, P., 180
Skripko, G. F., 126
Skuse, P. K., 394, 415
Slinger, J. V., 342, 343, 347
Slovak Technical University, Bratislava, Machining Research Laboratory, 252
Smekens, R., 67
Smith, L. J., 400
Smith, N., 317
Smith, N. R., 267, 341, 356, 414, 531
Smith, S. D., 110
Smith, W. V., 110
Snaddon, M. B., 225, 550
Somerset Guild of Craftsmen, 223
Sorokin, P. P., 110
Soviet Central Research Institute for Machines & Technology, 13
Spencer, L. J., 402, 405, 407, 408, 410
Spiro, P., 533, 538
Steinmetz, K., 56, 225, 550
Sterl, K., 258
Stern, E., 226
Stern, W., 226
Stettler, E., 548, 549
Stockholm Technical University 454
Stokes, A. R., 459, 461
Street, J. G., 342
Suchoparek, V. I., 433
Sunagawa, L., 127, 129, 498, 499
Sutton, J. R., 402, 406, 410, 460, 461, 498, 499
Swan, C. B., 497
Swan, R. J., 415, 416, 438

T
Tabor, D., 503, 506
Taeyaerts, J., 168, 169
Takagi, M., 110
Tarasov, L. P., 503, 506
Tas, S., 225
Tavernier, R., 68, 74, 302, 303
Technion—Israel Institute of Technology, 443
Technische Hochschule, Hannover, 21, 68
Tessin the Younger, Nicodemus, 401
Thomas, D. A., 507
Thompson, R. A., 545
Timofeev, I. D., 212
Tolansky, S., 22, 110, 127, 129, 272, 275, 498, 499
Tolkunov, S., 81
Torbilo, V. M., 555
Trancu, T. C., 102, 225, 227, 455
Trescott, D. A., 267, 363
Triefus, R. D. P., 414, 415, 416, 550
Triefus, Mrs. R. D. P., 550
Turner, 416
Turner, F. A. L., 362

U
UGIMA *see* Unione Generale Industriali del Marmo ed Affini
US Department of Commerce, 489
USSR State Standard, 'GOST', 126
Udahl, S., 67
Umanskii, C., 255
Unione Generale Industriali del Marmo ed Affini (UGIMA), 455
University College, London, 458
  Dept of Chemical Crystallography, 402
University of Barcelona, 266
University of Bristol, 495
  Wills Physical Laboratory, H. H., 362
University of London, 499
University of Manchester, 507
University of Sheffield, 441, 442
Usami, M., 530
Ustinov, V. L., 110
Utrecht (Holland) Trade Fair, 363

V
van Alphen, R., 225
van Dijk, J., 225

van Maarseveen, G., 226, 227
Van Moppes, L. E., 414, 415, 417
Van Moppes, L. M., 549, 550
Veerman, J. J., 258
Veldhuizen, E. C., 258, 264
Verma, A. R., 127, 129
Vicenza Seminar, 455
Vickerstaff, T. H., 415
Vinogradov, A. P., 110
Vogel, S., 21, 61
von Ardenne, 442

W
Wagner, H. W., 501, 506
Wagner, P. A., 402, 410
Wapler, H., 21, 225, 227, 247, 258
Weinz, E. A., 548, 549
Weiss, L., 21, 27
Weissberg, C., 227
Wells, J., 215
Wentorf, jr, R. F., 110
Whippey, P. W., 110
Whistler, L., 222
Whitehead, J., 349
Wicke, G., 225, 550
Wiemann, H. J., 67
Wilcock, W. L., 272, 275
Wild, H., 21, 22
Wild, R. K., 105, 110
Wilkinson, E., 260
Wilks, E. M., 272, 275
Williams, A. F., 402, 403, 410, 461, 498, 499
Williams, A. L. *see* Williams, A. F.
Williams, G. L. V., 454
Wills Physics Laboratory, H. H., University of Bristol, 362
Winter, E., 454
Winter, E.-M., 454
Winter, G., 454
Winter, W., 454
Wolf, J., 548, 549
Wolff, D., 222
Wood, M. G., 115
Woolwich Polytechnic, UK, 417
Worms, L. E., 550
Wren, Sir Christopher, 297, 300
Wright, F. E., 402

Y
Yarnitsky, Y., 443
Yoder, H. S., 461

Z
Zakharenko, I. P., 352
Zaklad Obrobki Metali Skrawaniem Politechniki Gdanskei *see* Gdansk Polytechnik
Zuspa Exhibition Hall, Zurich, 507
Zussman, J., 406, 407, 410, 459, 461

GEOGRAPHICAL INDEX

A
Africa, (*see also* South Africa, Republic of) 402, 407, 454, 459, 530, 547
Alexandria, Scotland, UK, 181
Amsterdam, Netherlands, 104, 225, 226, 258, 264, 363, 484
Andelfingen, Switzerland, 174
Annecy, Switzerland, 549
Antwerp, Belgium, 202, 225, 226, 363
Ashton-under-Lyne, UK, 157, 158
Aurora, Illinois, USA, 211, 417
Australia, 454

B
Bald Mountain, Scranton, Pa, USA, 544, 545
Banwell, Somerset, UK, 536
Barcelona, Spain, 122, 247, 266
Basingstoke, Hants, UK, 226, 267, 356, 411, 417, 435, 552
Beaconsfield, Bucks, UK, 553
Beckenham, Kent, UK, 435
Bedfordshire, UK, 447, 448
Belgium, 67, 81, 160, 167, 179, 202, 225, 226, 227, 302, 303, 363, 532
Berkshire, UK, 297, 298, 411, 417
Bienne, Switzerland, 549
Bilbao, Spain, 537
Birmingham, Warwicks, UK, 3, 156, 348, 537
Bogota, Colombia, South America, 412
Bottomcombe, Easton, Dorset, UK, 295, 296, 297, 299
Bratislava, Czechoslovakia, 252
Brazil, South America, 203, 402
Bristol, Somerset, UK, 362, 495
British Columbia, Canada, 267, 546
Bromma, Stockholm, Sweden, 271
Brookvale, New South Wales, Australia, 454
Brunswick, Germany, 182
Brussels, Belgium, 81, 160, 179, 302, 303, 532
Bucharest, Rumania, 507
Buckinghamshire, UK, 553
Buffalo, N.Y., USA, 536
Bulgaria, 81

C
Caldon de Monthuy, Spain, 122
California, USA, 53, 55, 228
Camberley, Surrey, UK, 546
Cambuslang, Lanarkshire, UK, 434, 435
Campagne-les-Wardreques, France, 247, 249
Canada, 267, 412, 507, 546
Carrara, Italy, 455
Charlottesville, Virginia, USA, 78
Cheshire, UK, 300, 500
Chicago, Illinois, USA, 13, 363, 507
Cleckheaton, Yorks, UK, 217
Cologne, Germany, 21, 61, 62
Colombia, South America, 412
Columbus, Ohio, USA, 6, 489
Colwyn Bay, North Wales, UK, 267, 551
Congo, Africa, 547
Connecticut, USA, 271, 308, 412, 456, 457, 536, 550
Coventry, Warwicks, UK, 34
Czechoslovakia, 180, 252, 255

D
Dakota, USA, 206, 208
Danbury, Connecticut, USA, 271, 412
Daventry, Northants, UK, 348, 349
Detroit, Michigan, USA, 228, 259, 363
Dorset, UK, 295, 296, 297, 298, 299
Düsseldorf, Germany, 225

E
East Orange, N.J., USA, 317
East River, USA, 3
Easton, Dorset, UK, 295, 296, 297, 299
Eire, 224, 225, 226
Elgin, Illinois, USA, 81, 228, 267, 317, 417, 507
Elzach, Switzerland, 549
England, *see* United Kingdom of Great Britain and Northern Ireland
Essen, Germany, 74
Essex, UK, 201, 202, 204

F
Fairfield, Conn, USA, 536
Farnborough, Hants, UK, 355
Florence, Italy, 223
Florida, USA, 267, 363
France, 153, 179, 180, 224, 228, 247, 249, 251, 302, 303, 318, 341, 412, 450, 547, 549

G
Gdansk, Poland, 350, 352
Gdynia, Poland, 352
Geneva, Switzerland, 153, 179, 225, 226, 341, 547
Germany, 14, 20, 21, 27, 28, 29, 31, 56, 61, 62, 67, 68, 74, 114, 116, 179, 182, 218, 221, 224, 225, 226, 227, 247, 258, 341, 415, 447, 454, 500, 549, 550'
Ghana, Africa, 402, 407, 459
Glamorgan, UK, 434
Gloucester, Glos, UK, 179, 267, 302, 362, 414, 501, 506
Gloucestershire, UK, 179, 267, 302, 362, 414, 501, 506
Gothenburg, Sweden, 67, 111, 160, 268, 311, 365, 549
Gujarat State, India, 127

H
Hackensack, N.J., USA, 55, 308, 318
Haifa, Israel, 443
Hamburg, Germany, 14, 27, 28, 258, 454, 500
Hampshire, UK, 226, 260, 262, 267, 355, 356, 411, 417, 435, 552, 555
Hanau/Main, Germany, 225
Hanover, Germany, 20, 21, 67, 116, 168, 221, 549
Harlow, Essex, UK, 201, 202, 204
Havant, Hants, UK, 260, 262
Hawthorne, Calif, USA, 228
Heilbronn, Germany, 549
Hertfordshire, UK, 267, 362, 415, 417, 489, 537
Hillingdon, Middx, UK, 479, 480
Hollywood Beach, Florida, USA, 267, 363
Huddersfield, Yorks, UK, 130, 345

I
Idar Oberstein, Germany, 549
Illinois, USA, 13, 81, 211, 228, 267, 317, 363, 417, 507
Immendorf/Koblenz, Germany, 56
India, 127, 272, 498
Iowa, USA, 317
Ireland *see* Eire
Israel, 443
Italy, 103, 223, 225, 227, 455

J
Japan, 525, 526, 527, 528, 530, 531
Johannesburg, South Africa, 6, 75, 116, 179, 224, 225, 226, 227, 302, 366, 415, 437, 495, 549

K
Kalamazoo, Mich, USA, 34
Kansas City, Missouri, USA, 34, 363, 454, 546
Kent, UK, 120, 130, 256, 265, 415, 416, 435, 438, 507, 537, 551
Kiev, Ukraine, USSR, 126, 212, 214, 267, 317, 507
Kiruna, Sweden, 349
Knowle, Warwicks, UK, 417
Kuibyshev, USSR, 255

L
Lanarkshire, UK, 434, 435
Lancashire, UK, 181, 342, 507
Lausanne, Switzerland, 549
Leeds, Yorks, UK, 304, 306
Leek, Netherlands, 264
Leicester, Leics, UK, 1, 2, 4
Leicestershire, UK, 1, 2, 4
Limoges, France, 179, 302, 303, 450
Lisieux, France, 179, 302, 303
Locarno-Minusio, Switzerland, 549
London, UK, 6, 34, 101, 153, 154, 179, 180, 182, 224, 225, 226, 227, 247, 267, 271, 295, 297, 298, 302, 304, 310, 317, 318, 341, 342, 365, 389, 394, 400, 402, 412, 414, 415, 416, 417, 434, 454, 455, 458, 480, 489, 490, 492, 499, 500, 506, 507, 537, 547, 549, 550, 551
Lyon, France, 179, 302, 303
Lyss, Switzerland, 549

M
Maidenhead, Berks, UK, 181, 417
Maidstone, Kent, UK, 130, 256, 265, 415, 416, 438, 507, 551
Malvern, Worcs, UK, 393
Manchester, Lancs, UK, 181, 507
Massachusetts, USA, 124, 125, 267, 268, 500
Merthyr Tydfil, Glam, UK, 434
Mexico City, Mexico, 412
Mexico, 412
Michigan, USA, 34, 228, 259, 363
Middlesbrough, Yorks, UK, 438, 442
Middlesex, UK, 180, 317, 434, 479, 480, 553
Milan, Italy, 225
Milburn, N.J., USA, 217
Millers Falls, Mass, USA, 124, 125
Missouri, USA, 34, 454, 546
Mochdre, Colwyn Bay, UK, 267
Morton Grove, Ill, USA, 267
Moscow, USSR, 180, 228, 255, 295, 411
Munich, Germany, 56, 67, 179, 224, 225, 226, 227, 247, 258, 341, 550
Murray Hill, N.J., USA, 363

N
Netherlands, 104, 222, 225, 226, 247, 258, 264, 363, 484
Neuchâtel, Switzerland, 549
New Barnet, Herts, UK, 417
New Jersey, USA, 55, 104, 217, 308, 317, 318, 363, 507
New South Wales, Australia, 454
New York, N.Y., USA, 3, 80, 130, 131, 180, 225, 227, 319, 363, 536
New York State, USA, 3, 80, 130, 131, 180, 319, 363
Newark, N.J., USA, 104
Niederlamitz, Germany, 114
Norrtalje, Sweden, 401
North Canton, Ohio, USA, 434
North Haven, Conn, USA, 456, 457
North Wales, UK, 155, 156, 267, 551
Northbrook, Ill, USA, 417
Northamptonshire, UK, 348, 349
Northumberland, UK, 389, 390, 392
Norway, 67
Nottinghamshire, UK, 439, 442

O
Odessa, USSR, 411
Ofuno, Japan, 530
Ohio, USA, 6, 433, 489
Ol-Trévoux, France, 318
Ontario, Canada, 507
Orilia, Ontario, Canada, 507
Oslo, Norway, 67
Osterath, Germany, 447
Oxford, Oxon, UK, 12, 13, 74, 153, 506
Oxfordshire, UK, 12, 13 74, 153, 506

P
Paris, France, 179, 224, 227, 228, 302, 341, 450, 547, 549
Paris-Puteaux, France, 153, 179, 302
Pas de Calais, France, 249
Pennsylvania, USA, 489, 507, 544, 545
Perivale, Middx, UK, 434
Philadelphia, Pa, USA, 489
Plovdiv, Bulgaria, 81
Poland, 350, 352
Port de Versailles, France, 228
Portland, Dorset, UK, 297, 298
Portsmouth, Hants, UK, 555
Potomac River, USA, 79
Prague, Czechoslovakia, 252, 255
Proctor, Vermont, USA, 268
Puteaux, Paris, France, 153, 179 302

R
Richmond, Virginia, USA, 78
Rolla, North Dakota, USA, 206, 208
Romily, Stockport, Lancs, UK, 342, 500
Rosslyn, Virginia, USA, 78
Rotterdam, Netherlands, 222, 247, 258
Rumania, 507
Runnymede, Berks, UK, 297, 298

S
St Asaph, North Wales, UK, 155, 156
St Omer, Pas de Calais, France, 249
Saltney, Ches, UK, 300
San Diego, Calif, USA, 53, 55
Scandinavia, 67, 364
Scotland *see* United Kingdom of Great Britain and Northern Ireland
Scranton, Pa, USA, 544, 545
Shannon, Eire, 224, 225, 226
Sharpenhoe, Beds, UK, 447, 448
Sheffield, Yorks, UK, 441, 442
Siberia, USSR, 407, 459
Sierra Leone, Africa, 402, 407, 454
Smolensk, USSR, 267
Somerset, UK, 362, 495, 536
South Africa, 6, 75, 111, 116, 179, 224, 302, 366, 415, 416, 437, 495, 549
South America, 203, 412
South Wales, 434
South West Africa, 228
Southgate, Mich, USA, 259
Spain, 122, 147, 266, 537
Spiez, Switzerland, 549
Springs, South Africa, 416
Stamford, Conn, USA, 457, 551
Stevenage, Herts, UK, 489
Stockholm, Sweden, 67, 81, 224, 225, 227, 271, 401, 454
Stockport, Lancs, UK, 342, 500
Stratford, Conn, USA, 308
Strümp, Post Osterath, Germany, 447
Stuttgart, Germany, 21, 168, 218
Surrey, UK, 546
Swaziland, Africa, 530
Sweden, 67, 81, 111, 160, 167, 224, 225, 227, 268, 271, 311, 349, 365, 401, 454, 549
Switzerland, 22, 153, 174, 179, 225, 226, 341, 507, 547, 549

T
Teddington, Middx, UK, 180
Tel Aviv, Israel, 226
Tokyo, Japan, 525, 526, 527, 528, 531
Toronto, Canada, 412

U
Ukraine, USSR, 126, 212, 214, 267, 317
Union of Soviet Socialist Republics, USSR, 81, 126, 180, 212, 214, 228, 255, 267, 295, 317, 407, 411, 459, 507, 547
United Kingdom of Great Britain & Northern Ireland, UK, 1, 2, 3, 4, 6, 12, 13, 34, 67, 74, 101, 120, 130, 153, 154, 155, 156, 157, 158, 159, 179, 180, 181, 182, 201, 202, 204, 216, 217, 224, 225, 226, 227, 247, 256, 260, 262, 265, 267, 271, 295, 296, 297, 298, 299, 300, 302, 304, 306, 310, 317, 318, 341, 342, 345, 348, 349, 355, 356, 362, 365, 389, 292, 393, 394, 400, 402, 411, 412, 414, 415, 416, 417, 434, 435, 438, 439, 441, 442, 447, 448, 454, 455, 458, 479, 480, 489, 490, 492, 495, 499, 500, 501, 506, 507, 536, 537, 538, 546, 547, 549, 550, 551, 552, 553, 555
United States of America, USA, 3, 6, 13, 27, 34, 53, 55, 67, 78, 79, 80, 81, 104, 124, 130, 131, 153, 155, 180, 205, 206, 208, 211, 217, 225, 226, 227, 228, 259, 267, 268, 271, 301, 304, 308, 317, 318, 319, 363, 412, 417, 434, 454, 456, 457, 489, 500, 507, 536, 544, 545, 546, 551
Urals, USSR, 407, 459
Uster, Switzerland, 22
Utrecht, Netherlands, 363
Uxbridge, Middx, UK, 317

V
Vancouver, BC, Canada, 267, 546
Vermont, USA, 268
Versailles, France, 180
Vicenza, Italy, 455
Virginia, USA, 78, 507

W
Wallsend, Northumberland, UK, 389, 390, 392
Waltham, Mass, USA, 500
Warwick, Warwicks, UK, 415, 490
Warwickshire, UK, 3, 34, 156, 348, 415, 417, 490, 537
Washington, DC, USA, 78, 79
Welwyn, Herts, UK, 415, 537
Welwyn Garden City, Herts, UK, 267, 362

Wembley, Middx, UK, 553
West Malling, Kent, UK, 120
Wilton, Middlesbrough, Yorks, UK, 438, 442
Windhoek, South West Africa, 228
Wokingham, Berks, UK, 411
Wolfsburg, Germany, 31
Woolwich, London, UK, 417
Worcester, Mass, USA, 267, 268
Worcestershire, UK, 393
Worksop, Notts, UK, 439, 442

Y
Yorkshire, UK, 130, 216, 217, 304, 306, 345, 438, 441, 442

Z
Zurich, Switzerland, 507

TRADE NAME AND COMPANY INDEX

A
AB Industridiamanter, 401
AB Profila, 81
AB Slipmaterial-Naxos, 67
Abwood Machine Tools Ltd, 203
ABWOOD/AUTOFLOW, 203
Accurate Diamond Tool Corp, 55, 124, 308, 318
ACCUTRON, 206
ADT *see* next entry
Advanced Diamond Technology Ltd, (ADT), 157, 158, 159
AEG-Telefunken, 548, 549
AGIFA, 507
Alfa Laval Group, 81
ALLENITE, 504
Anglo-American Corp., 530
Asahi Diamond Co, 531
Atlas-Copco, 263, 349
Autoflow Engineering Ltd, 156, 205
Avco Lycoming Div, 308, 309
Ayer & Son Inc, N. W., 180

B
Bakelite Xylonite Ltd, 435
Balloffet Die Corp, 413
Bank of Japan, 530
BBC, 3
Bell Telephone Laboratories Inc, 301
Benz Mikrodiamanten, 174
BIEG, 548, 549
Black & Decker, 532
Blackstone Ltd, David, 304, 306
BLADE GUARD PROTECTOR, 34
Blanchard Machine Co, 154, 155
Blohm-AGIE, 479, 483
BLOHM ROTOFORM, 360
Boart & Hard Metal Products SWA Ltd, 228
BORAZON, 211
Boyles Industries Ltd, 267, 507, 546
Branson Instruments, 551
Branson Sonic Power Co, 271
Bridgeport Milling Machine Co, 155
BRIKSAWMATIC, 454
BRIKSAWS, 454
Bristol Aerojet Ltd, 536
Broomfield Carbide Gauges Ltd, 343, 345
Brügger, Rud., 548, 549
Bryant Symons & Co Ltd, 3, 318
Bulova Watch Co, General Services Administration Plant, 206, 208

C
Canon Camera Co, 525, 526, 527, 528, 529
CAPCO, 411
Carbide Dies Ltd, 341, 345
Carbidex Corp, 259
CARBOLOY, 396
CARDIAFORM, 317, 360, 361, 364, 411, 414
Castrol Industrial Ltd (formerly Fletcher Miller Ltd), 506
CENTAUR, 53, 55
Centre National des Industries et Techniques, 153, 179
Chance Pilkington, 155
Churchill Machine Tool Co, 364
Cine Inc, 267
Clipper Diamond Tool Co, 80, 363
Clipper Manufacturing Co, 363, 454
  Norton Construction Products Division, 454
CLIPPER *see also* **Construction Equipment & Machinery Co.**
CLU *see* **Contact Lens Universal Modification Unit**
CLYCOR, 163
COLCHESTER BANTAM, 391
Colt Heating & Ventilation Ltd, 260, 262
Columbia Broadcasting System, (CBS), 545
Cie Norton, 302, 303, 450
CONSAW, 271
Consolidated African Selection Trust (CAST), 461
CONSTELLATION, 437
Construction Equipment & Machinery Co, 363
Consultant's Bureau, 319
Contact Lens Universal Modification Unit (CLU), 307
Convair Division, General Dynamics Corp, 53, 55
CONVAIR ATLAS, 55
Craelius Co Ltd, 348, 349, 532
Crystal Division, Standard Telephones & Cables Ltd, 201, 202, 204, 205

D
Daimler-Benz AG, 21, 168, 218
Dawe Instruments Ltd, 551
DAWE SONIPROBE, 391
DBIDD *see* **De Beers Industrial Diamond Division**
De Beers, 180, 206, 226, 228, 249, 251, 258, 308, 389, 393, 530
DE BEERS DXDA-MC, 8, 9, 11
DE BEERS EMB, 180
DE BEERS EMB-S, 311
DE BEERS HARDCORE, 545
De Beers Industrial Diamond Division (DBIDD), 1, 6, 20, 56, 67, 111, 112, 119, 153, 179, 224, 226, 247, 267, 295, 302, 303, 310, 317, 341, 350, 356, 365, 414, 415, 416, 433, 450, 454, 455, 492, 525, 531, 547, 548, 550
De Beers Industridiamant-Service AB, 67, 454
De Beers Industrie-Diamanten (Deutschland) GmbH, 67, 179, 258, 341, 548, 550
DE BEERS MDA, 153, 447, 448, 525, 527, 529
DE BEERS RDA, 6, 7, 8, 481, 483
DE BEERS RDA-MC, 6, 7, 8, 9, 318
DE BEERS SDA, 311
DE BEERS SND-MB, 450
De Beers Stockholm Technical Advisory Centre, 226
De Wit, Johan, 258
DEDTRU, 342, 343
DELAPENA SPEEDHONE, 341, 346
Dembitzer & Co, Ets J, 202
Derbyshire Stone Grinders, Padley & Venables Div, 447
Deutsche Werft AG, 27, 28
DIABLOC, 364
DIABOART, 454
DIACUT, 454
DIADEX, 364
Diaform Ltd, 317
DIAFORM, 317, 356, 357, 359, 361, 364, 411, 481
Diagrit Diamond Tools Ltd, 155
Diagrit Electrometallics, 263
DIALAP, 437, 483
Diamant Boart SA, 67, 160, 167, 179, 302, 303
DIAMANT-FLIESE, 18
DIAMANT-IGEL, 16, 17, 18
Diamants Industriels De Beers, 179
DIAMESH, 364
Diamond Abrasive Products Ltd, 437
Diamond & Boart Products (Australia) Pty Ltd, 454
Diamond Precision Tools Ltd, 537
Diamond Products Div, Elgin National Watch Co, 81, 228, 317, 417, 507
Diamond Stylus Co Ltd, 267, 551
Diamond Tool Associates, 228, 391
Diamond Tool Research Co, 80
Diamond Wheel Manufacturers Institute (USA), 180
Diamond Wheel Production, Fritz Wendt KG, 415
DIASLIDE, 552
DIASTUD, 364
DIATIPT, 364
DIATUBE, 364, 401
DOWNLAND, 261
Drendel & Zweiling, 535
DROMUS B, 113, 367, 504
Drukker & Zn NV, D., 104, 258, 363, 484
Dubbeldee Diamond Co Ltd, 416
Ductile Material Experimental Diamond Abrasive—Metal Clad (DXDA-MC), 8, 9, 11
DUMORE, 413
Durafourg & Fils R., 548, 549
Durrschmidt, Ets, 179, 302, 303
DXDA-MC *see* **Ductile Material Experimental Diamond Abrasive—Metal Clad**
Dyke Diamond Products Ltd, 1, 3, 156, 347
DYNAGROOVE, 178

E
Eagle Pencil Co, 412, 413
Eastern Diamond Products Inc, 217
Edibrac Group, 341, 342, 343, 345, 347
  Edibrac Carbide Division, 342, 344
  Engineering Division, 342, 344
  Hinvac Carbide Division, 342, 344
Edibrac Hard Metals Ltd, 347
ELB-SCHLIFF, 391
Elcometer Instruments Ltd, 181
Electroformers Ltd, 537
Electroforming Dept, London & Scandinavian Metallurgical Co, 533
Elgin Diamond Products (Europe) Ltd, 267, 551
Elgin National Watch Co, 267
  Diamond Products Division, 81, 228, 317, 417, 507
Elliott Automation Control Valves Ltd, 551
Elliott Machinery Ltd, B., 203
EMB, 180
EMB-S, 311
ENGELHARD, 530
Engelhard Hanovia Inc, 104
Engelhard Industries Inc, 109
Engis Ltd, 265, 317, 415, 416, 438, 507, 551
  Hyprez Division, 317
Engis Equipment Co, 267
Engis International Organization, 256
ENGIS Mk III, 256
ENGIS LAPPING & POLISHING MACHINES, 507
Engis Precision Corp, 267
English Drilling Equipment Co Ltd, 130
ERICHSEN, 181
ESSO TERESSO, 555
Evans Co, Robert G., 546
Eveready Div, Norton Construction Products, 34
EVEREADY XTRA DUTY BRIK-SAWS, 34

F
FEHR REFLECTION GONIOMETER, 353
FERROXCUBE, 535
Filotecnica Salmoiraghi, 101, 103
Fleming Instruments Ltd, 489
Fletcher Miller Ltd (now Castrol Industrial Ltd), 506
Foraky Ltd, 167
FORBETON *see* Société Forbeton
FORD, 364
Ford-Werke AG, 21, 61, 62
Fratelli Mordenti, 314
FRIATEST, 311
Froehling & Robertson, 78, 79, 80

G
GARIA H, 505
GEC Ltd, 555
General Dynamics Corp, Convair Div, 53, 55
General Industrial Diamond Co, 317
General Refractories, 439, 442
General Services Administration Plant, Bulova Watch Co, 206, 208
Gentry Carbide Tool & Die Co Inc, 217
Gilson, Ets Pierre, 247, 248, 249, 250, 251
Glacier Metal Co Ltd, 553
GRASSO, 263
Gropptorps Marmor AB, 67
GULFCUT G, 504
Gulf Oil (Great Britain) Ltd, 506

H
HAMCO, 411
Hammond Machinery Builders Inc, 34
HARDCORE, 545
HARDINGE, 304, 305, 307, 553, 555
HARDYNGE, 156
Heger, Rudolf, 300
Henderson Diamond Tool Co Ltd, 34
HEXAMATIC, 299, 300
Hilmer, Herman, 297, 300
Hilton Hotel, Brussels, 532
Hinton Ltd., D., 341, 345, 346
Hinvac Carbide Division, Edibrac Group, 342, 344
HOCUT G, 504
Holemasters Ltd, 67
HOLEMASTER DIATUBE, 364
Hoover Ltd, 433, 434, 435, 436, 437
HOOVER CONSTELLATION, 437
HOOVERMATIC, 435
HURRICANE, 260
Hyprez Div, Engis Ltd, 317
HYPREZ, 256, 257, 265, 507

I
ICI Ltd, 305, 438, 442
IDESA—Industrias Diamantifera Espanola SA, 122
IDP *see* Impregnated Diamond Products Ltd
IMPATT, 301
Imperial Chemical Industries *see* ICI Ltd
Impregnated Diamond Products Ltd, 179, 215, 267, 302, 362, 389, 391, 393, 414, 501, 506
Indusmond (Diamond Tools) Ltd, 417
Industrial Distributors (1946) Ltd, 461
Industrial Distributors (Sales) Ltd, 416
Industrias Bonastre SA, 122
Ingenieurbüro Franz Hinse, 56
INGERSOLL RAND, 401
ITEC Training Centre, 266
Ivanov Test Equipment Factory, 213

J
Jabo Optiek NV, 264, 265
JONES & SHIPMAN, 7, 342, 393, 483

K
K & C Mouldings (England) Ltd, 261
KEMET, 317, 416, 438, 439, 507
KEMET CERAMICS, 438
KEMET COPPER, 438, 439, 442
KEMET IRON, 438
KEMET LEAD, 438
KEMET TIN, 438
KEMET TUNGSTEN CARBIDE, 438
KENT, 317, 507
KERRY, 391
Kingston Minerals Ltd, 297
Knight Taylor Ltd, 271
Koebel Diamond Tool Co, 267, 363
KOHLER, 78
KOPP, 1, 5

L
Legrand SA, 179, 302, 303, 450
Lion Diamond Tool Co Ltd, 159
LKAB, 349
Logitech Ltd, 181
London & Scandinavian Metallurgical Co, 538
  Electroforming Dept, 533
LOOMIS, 412
LOSCA, 537
Lunzer Industrial Diamond Inc, 130

M
MAGDEBURG, 5
Majestic Diamond Tool Co, 413
MARINER, 55
MDA, 153, 447, 448, 525, 527, 529
Metal Box Co, 34
Meyer & Burger, 205, 390
Meyer, Carl, 67
MICROREX, 450
Mikron SA, 548, 549
Millers Falls Co, 124, 125
MINUTEMAN ICBM, 308, 309
Mitsubishi, 530
Mitsui, 530
ML Aviation Co Ltd, 181
MOBILET *see* MOBILMET
MOBILMET, 389, 391, 393
MONARCH, 55
Monochrome Ltd, 537
MOORE, 55
Mordenti, Fratelli, 314
Morris Ltd, B. O., 263
MU-METER, 181
MYFORD, 343, 345, 347

N
Náradi np., 252
New Yorker Magazine Inc, 317
NICODUR, 81
Nihon Optical Co, 531
Nilsson & Soner Granit AB, 67
NIMATRIX, 411
Nippon Christensen Diamond Co, 531
Nippon Plate Glass Co, 531
NORTON, 179, 205, 396
Norton Abrasives Ltd, 267, 362, 415
  Precision Grinding & Diamond Products, 394, 415, 416
Norton, Cie, 302, 303, 450
Norton Co, 267, 268, 269, 270, 347, 362, 400
  Research & Development Dept, 394
Norton Construction Products Division, Clipper Manufacturing Co Inc, 454
Norton International Inc, 67, 268
Novosti Press Agency, 295
NuSyte Ltd, 304, 305, 306, 307

O
OIL-MISER, 454
Optical & Surface Finishing Dept, Thermal Syndicate (TSL) Ltd, 389, 390, 391, 392, 393
Oriental Diamond Industries, 530
Osaka Diamond Co, 531
OVERBECK, 346

P
Padley & Venables Division, Derbyshire Stone Grinders, 447
Parker Pen Co, 555
Pels (Agencies) Ltd, Henry, 500
Perkin-Elmer Corp, 153, 154
Perkin-Elmer Ltd, 553
PERKINS, 349
PERPRO *see* Production Tool Alloy Co
PERSPEX, 103, 304, 305
PET CLEANER, 318
Philips Gloeilampenfabrieken NV, 497
Philips Natuurkundig Laboratorium, 258
Pilkington Bros Ltd, 153, 154, 155
Pilkington Perkin-Elmer, 153, 154, 155, 156

PIXIE (Craelius), 349, 532
Platecraft of America Inc, 536, 538
POLYTUBE, 34
Powerbond Ltd, 500
Pratt & Witney Aircraft, 456, 457
Précidia SA, 179, 302, 303
PRECIMAX, 437
Precision Diamond Tool Co, 267
Precision Grinding & Diamond Products, Norton Abrasives Ltd, 394, 415, 416
PRECISION POLISHING JIG, 181
Precisionlap Ltd, 546
Production Techniques Ltd, 411
Production Tool Alloy Co (PERPRO), 446, 447, 448

Q
QTM MICROSCOPE, 441

R
Radial Drill Factory, Odessa, 411
RADYNE, 349
Rank Organization, *see* next entry
Rank Taylor Hobson Division, Rank Organization, 1, 2, 4, 5
RANK TAYLOR HOBSON VAROTAL, 3, 5
RAPIGRIND, 203
Raybrook Precision Honing Co Ltd, 217
Raytheon Co, Microwave & Power Tube Division, 500
Raytheon Overseas Ltd, 500
RCA (Radio Corp. of America), 178
RDA, 6, 7, 8, 481, 483
RDA-MC, 6, 7, 8, 9, 318
REFLECTION GONIOMETERS, 355
Reich, Ets B., 81
Research & Development Dept, Norton Co, 394
Reul Granit AG, 67, 114, 115
RIBON, 346
Rigby & Sons Ltd, John, Sintered Metal Division, 216, 217
RONDIST, 16, 18
ROTOFORM, 360
Royal Radar Establishment, 393
Ryarsh Brick & Sand Co, 120

S
Scandiamant AB, 67, 81, 226, 454
SCHAUBLIN, 555
SCHERRER, 68
SDA, 311
SHARRATT & NEWTH DIASTUD, 364
Shell Co, 113
Shell Mex & BP Ltd, 506
Sicamétal, 179, 302, 303
SICN *see* Société Industrielle des Combustibles Nucléaires d'Annecy
Sierra Leone Selection Trust, Ltd, 461
Sintered Metal Division, John Rigby & Sons Ltd, 216, 217
SIP *see* Société Genevoise d'Instruments de Physique
SLAVUTICH, 507
Small Electric Motors (SEM) Ltd, 435
SMETCOREN, 300
Smit & Sons Inc, J. K., 155, 363
Smolensk Gem Cutting Plant, 267
SND-MB, 450
Société Forbeton, 228
Société Genevoise d'Instruments de Physique, 548, 549
Société des Grands Travaux de l'Est, 228
Société Industrielle des Combustibles Nucléaires d'Annecy, 548, 549
SONODUR HARDNESS TESTER, 457, 551
SPECTROSIL, 393
SPEEDHONE, 341, 346
Spider Inc, 124
SPIDER LATHE, 125
SPITFIRE, 260, 261
Sprague & Henwood Inc, 78, 544, 545
Standard Telephones & Cables, Crystals Division, 201, 202, 204, 205
Stankoimport V/O, 81, 411
STC *see* Standard Telephones & Cables
Stenkontoret Oslo, 67
Stettler SA, H., 548, 549
Stone Firms Ltd, 295, 296, 297, 298, 299, 300
STRATADRILL, 130
Studer, Fritz, 347
Sumitomo Denko Co, 530, 531
Super-Cut Inc, 267, 363
Superior Plating Co, 536
Sushi, 530
Svenska Diamantbergborrnings AB 67
Svenska Stenindustrins Forskningsinstitut, 67
SWIFT, H, FLETCHER MILLER, 555
Swiss Watch Stone Manufacturers Association, 547, 548
SYFODIA *see* Association of Diamond Tool Manufacturers

T
TALYROND, 5
TALYSURF, 5
TARGET SUPER-LOK, 546
TECHNAPHOT, 156
Technirubis SA, 548, 549
TEEG Research Inc, 259
Thermal Syndicate (TSL) Ltd, Optical & Surface Finishing Dept, 389, 390, 391, 392, 393
TOE-MATIC, 34
Tokyo Diamond Tools Manufacturing Co Ltd, 526, 529
Toolmasters Ltd, 360, 479, 480, 481, 483
Triefus Ltd, 295
Triefus Industries Ltd, 305, 415, 416
TRIEFUS DIAMOND WHEEL, 300
Turret Grinding Wheel Co, 391
TYPHOON, 260

U
UKAEA *see* United Kingdom Atomic Energy Authority
Ultra High Pressure Units Ltd (UHPU), 416
Ulvsunda Verkstäder AB, 271
UNI-NEVEN (Impregnated Diamond Products Ltd), 389, 393, 504
Union Carbide Corp, 295
Union Carbide (UK) Ltd, 267, 400, 415, 490, 494
United Greenfield Corp, 417
United Kingdom Atomic Energy Authority (UKAEA), 391
United States Diamond Wheel Co, 201, 211, 362, 417
UVA Dressing Control UDC, 271

V
Van Itallie Co Inc, 267, 363
Van Moppes & Sons Ltd, L. M., 267, 317, 356, 364, 411, 417, 435, 437, 531, 552
VAROTAL, 3, 5
Vaughan & Co Ltd, Edgar, 506
Vermont Marble Co., 268, 269, 270
Vianney, Ets Joseph, 318
VIANNEY ULTRASONIC, 318
VICKERS, 55
VITREOSIL, 390, 391, 392, 393
V/O Stankoimport, 81, 411
Volkswagen, 31

W
WAE-W ELECTROLYTIC GRINDER (Fritz Wendt KG), 447, 448
Wakefield Industrial Service Co (Kent) Ltd, 130
WANKEL ENGINE, 227, 258
Weinz KG, Ernst Fr., 548, 549
Wellson Abrasive Products Ltd, 537
Wendt KG, Fritz, 415, 447, 448
Wessex Machine Tool Co, 300
Wheel Trueing Tool Co, 228
Whitehead Engineering (Willesden) Ltd, John, 202
Whitmyer Construction Co, 78
Winter & Sohn, Ernst, 14, 67, 258, 393, 454, 500
WONDER WHEEL, 318

Z
ZEISS ELECTRON MICROSCOPE, CARL, 272
ZEISS INTERFEROMETER, 345

Printed by KENION PRESS LTD., Slough, Bucks.